

LATROBE VALLEY FIELD NATURALISTS' CLUB.

MONTHLY NEWSLETTER.

ISSUE NO. 18.

MAY 1965.

'PROTECT

AND

ENJOY'

PRESIDENT:

Mr. E.H. Homann,
84 Hennessey Street,
M O E .

SECRETARY:

Mr. S. Belgraver,
179 Lloyd Street,
M O E .

Next Meeting:

Members are reminded that the next Meeting is to be on Wednesday 26th. May, and that the subject is Water Birds by Mr. Roberts.

The Excursion Secretary, Miss Nancy Rossiter, provided the following notes regarding the Excursion on Saturday 29th. May; -

' Mr. Roberts, of the Fisheries & Wildlife Department will lead the excursion on Saturday May 29th., which is to be in the region of Dowd's Morass, South-east of Sale. It is hoped to see many water-birds in this area, and members should bring field glasses if they have them. Picking-up times are;

Moe.	8.30 a.m.	Post Office.
Yallourn.	8.45 a.m.	" "
Morwell.	9.00 a.m.	Town Hall.
Traralgon.	9.30 a.m.	Methodist Church. on the south side of the Princes Highway. Mr. Roberts will join the party here.'

Report of the Executive Meeting held at the home of Miss Rossiter on Friday 14th. May by the Secretary, Mr. S. Belgraver:

Car Stickers: A report submitted by the sub-Committee was discussed, and it is now intended to obtain quotes for the making of stickers. Publicity in the 'Victorian Naturalist' will coincide with the sending of letters on the matter of Car Stickers to a large number of Clubs, and a special bank account has been opened to deal with the financial side of the project.

Sale of native trees and shrubs: A letter from Mr. L.A. Fell of Metung advising the sale of an interesting collection of Australian trees and shrubs in aid of Legacy was read and commended to members. It is referred to elsewhere in this Newsletter.

Plebiscite on Meeting Night: Members are requested to return the completed forms as soon as possible.

Hazelwood Arboretum: On Saturday May 8th. members of the Morwell Horticultural Society and of this Club planted over 200 trees. This was the most successful working bee so far, there being 18 workers present. Messrs. Bill Parsons and Ted McElroy had given things a good start by planting a number of trees in the wind-break along Switchback Road.

As the next working bee falls on a holiday weekend, Saturday 12th. June, it has been decided to hold it on Saturday May 22nd. On this day it is hoped to plant 180 trees, which are the last seedlings being held by the S.E.C. for the Arboretum.

The next Meeting of the Executive will be held on Friday 11th. June at the home of Mr. E.H. Homanns in Moe.

October Excursion: Members will have noted from the programme that this excursion was arranged for the weekend 30th. October. Miss Rossiter has been advised however, by the Victorian Tourist Bureau that Wallaby Lodge will not be available, and the Lodge

has therefore been booked for the 23rd. October, that is, a week earlier. This altered date is agreeable to the leader of the excursion, Mr. Garnet, and members are requested to contact the Excursion Secretary, Miss Rossiter regarding accommodation.

Sale of Trees and Shrubs: The letter from Mr. L.A. Fell, whose address is 'Dane Ghyll', Metung, telephone Metung 210, was as follows:

' I am selling a series of native shrubs and a few trees in aid of Legacy funds on Sunday May 23rd. These have all been grown from seed here and are in plywood or tins. They are all young plants and I hope not pot bound. Prices will be from 3/- to 10/-. Some of your members may be interested.

About 11 a.m. that day I will show anyone interested the garden here which has about 200 varieties of natives.'

In a postscript Mr. Fell, who is a member of the Bairnsdale Field Naturalists' Club wrote 'None is more than 12 months old. Mostly well grown But not root bound like so many of those sold'.

Picking and Collecting Native Flowers and Plants:

One of the important objects of a Field Naturalist Club is to foster, by education and example, the protection of Australian native flora, and members of F.N.C's are under a special obligation to refrain from picking or despoiling native flowers and plants, particularly those which are protected by law, and those growing in areas set aside as nature reserves.

Members who fail to carry out their obligations in this respect while claiming to be field naturalists bring discredit upon all field naturalists and clubs and societies with similar ideals.

The object of this is to report to readers of the Newsletter the concern of the Executive on learning that some persons claiming to be members of this Club were discovered removing orchid plants from the Wilson's Promontory Reserve by the Ranger. The Ranger (Mr. Miller) told later member visitors to the Promontory that he had a poor opinion of members of the Club because of the incident.

The Executive charitably assumed that the persons involved acted in ignorance, but are also concerned that ignorance in this direction could exist among members.

BIRD-BANDING by Mr. Frank Jones:

During our first attempts to band birds some interesting points of bird behaviour and distribution have become apparent. Most of our banding has been done in the Stoney Creek area near Cowarr as a follow-up operation to the banding done by the Victorian Ornithological Research Group last October when 160 birds were banded. In the course of several days of mist-netting in the area recently nine of these October banded birds were retrapped, and 117 birds were banded. The birds retrapped were of the common sedentary species, the Blue Wren; Yellow Robin; White-browed Scrub-wren; and one Red-browed Finch, a species which I think is to a certain extent nomadic.

In all, 227 birds of 26 different kinds have been banded in the Stoney Creek area, and the fact that some have already been retrapped indicates that this represents a considerable proportion of the entire bird population of the area. Although of course, it is not possible to prove anything from such small numbers, the results so far fit in with known bird behaviour, and observations made in the course of bird-banding suggest several theories that should be worth following up in the future.

One puzzling feature of the bird population of the area is the presence at this time of the year of a large number of Honey-eaters compared with the scarcity of these birds during the warmer months, in spite of the fact that there has been no general flowering of any nectar producing plant. It could be that the Honey-eaters are on the move to the winter flowering Banksia areas a few miles away, and this possibility is supported by the fact that the species concerned are the long billed kinds:- Spinebills, Crescents, and Yellowwings, which are the best adapted for the extraction of nectar from the deep Banksia flowers. 60 of the 117 birds banded at the most recent banding were of these three species. With luck, evidence may be gained to support this idea by mist-netting in the Banksias throughout the next few months.

Of course, anything learnt along these lines will not be of much value unless it coincides with the findings of other banders working in similar areas, and there is a great need for more bird-banders, particularly in Gippsland. The main object of the scheme is to increase our knowledge of bird life with a view to greater conservation and a much greater coverage of our vast bushland areas is needed to obtain this worth-while result.

Fortunately bird-banding also has great value as a recreational activity, and it is only a matter of enough people being sufficiently interested to participate and there will be no shortage of bird-banders.

GOLDEN-headed FANTAIL WARBLERS by Mrs. May Galbraith:

I have discovered (in February last) a small colony of quite rare birds right on the outskirts of the City of Traralgon, so some of our members may like to hear about them.

They are Golden-headed Fantail Warblers (*Cisticola exilis*), commonly called Tailor birds from their habit of sewing leaves together to form the outer covering of their nests.

They inhabit a neglected corner of a grassy paddock just across the railway line a few hundred yards from our house. They make a very unusual squeak rather like a child's toy whistle, that is how I found them. I have often passed the spot and never thought of going bird watching in such an unlikely place. I have seen about half a dozen of the little warblers among the tall grass and thistles, and I am hoping they will stay there and build next spring. The nest sounds something very special.

These observations were made on February 11th. and 18th..

--- M.G. ---

NOTES ON THE DUNE VEGETATION OF VENUS BAY AND CAPE LIPTRAP CLIFFS by Miss Jean Galbraith.

The following notes, compiled from information supplied by Mrs E. Lyndon, may interest those who saw the plants referred to on the Walkerville excursion.

Two sandbinding grasses hold the unstable dunes. These are Hairy Spinifex (*Spinifex hirsutus*) with long underground runners, softly downy foliage and decorative loose globular inflorescences, one of which would fill ones cupped hands, and Marram Grass (*Ammophila arenaria*) introduced to this country as a sandbinder. It too has underground creeping rhizomes and the inrolled sharp-pointed leaf-blades grow in dense tufts surmounted by long spikes of pale straw-coloured flowers, slender, and bowed by sea winds.

In some places the introduced thistles (*Sonchus megalocarpus*) with large dandelion like flowers, is abundant. The Sea Rocket (*Cakile maritima*) grows almost down to high tide mark, a light green sprawling plant with fleshy leaves and pink four petalled flowers. It belongs to the family cruciferae plants of which have always flowers with four petals forming a cross. It grows on many of the world's seashores and may be a native of this country, or may have been introduced during the early days of settlement.

An unquestionable and characteristic native is the Cushion-bush, (*Calocephalus brownii*). Its big silver cushions of entangled twigs, clothed with tiny white leaves and dotted with cream button flowers, are a decorative part of our coastal vegetation. It is especially conspicuous on the cliffs, often in company with two of our native noon-flowers (once called pig-face). These are Angular Noonflower (*Carpobrotus aequilaterale*) with three-sided leaves, and Rounded Noonflower (*Disphyma australe*) with leaves like little green sausages. Both have large bright pink flowers, (occasionally cream in *Carpobrotus*) which open in full sunshine; hence the name 'noon-flower'.

Like many of the coastal plants these have to endure drying salt winds and much exposure. They store water in their succulent foliage, which is often brightly coloured with red and bronze. The colour, like the succulence, is protective, absorbing too-strong rays from the opposite end of the spectrum.

Creeping unobtrusively through the sand is the trailing and tufted Purple Swainson-pea, with pinnate leaves, and, over a long period, sprays of royal purple flowers; little peas with a touch of yellow or white in the centre.

Soft little light-green Sea Celery, with rather shiny lobed foliage and minute flowers, is at home everywhere amongst rocks and sand, and so is the luxuriant New Zealand Spinach (*Tetragonia expansa*) with its thick roughly diamond-shaped leaves that in some lights look as if dusted with glitter. It has small unobtrusive yellow flowers, but large leaves.

There are two bright-flowered Daisies on the dunes, Variable Groundsel (*Senecio laetifolius*) with gay yellow flowers, and the naturalised South African Purple Groundsel (*S. Elegans*) with magenta-purple flowers.

Salt-tolerant shrubs are at home especially on the cliffs, and amongst them grows the small Clematis (*C. microphylla*), at present a tangle of climbing stems and much divided leaves, but in Spring a fleece of creamy flowers, soon replaced by another fleece of plumed fruits.

Sea-box (*Alyxia buxifolia*) has very tough leathery leaves, oval and dark, but with a sculptured beauty which is a decorative background for orange-red berries on fragrant little white flowers with twisted petals. White Correa (*C. alba*) has also oval leaves, but their protection is less in toughness than in their mealy-grey covering. In bud White Correa has the brown cup and bluntly oval bud characteristic of all correas, but the white petals open into large waxy stars with darker stamens, instead of being fused into bells.

Coast Everlasting (*Helichrysum gunnii*) and Coast Daisy-bush (*Olearia axillaris*) are both robust tall shrubs with narrow leaves, the former leathery and shining, on branches ending in flat clusters (corymbs) of pale yellow flowers; the latter soft and mealy with inconspicuous cream flowers at the leaf-bases. The Coast Daisy-bush has a strong characteristic smell.

Last of the characteristic dune shrubs is Coast Daisy-bush (*Leucopogon parviflorus*) with very thin pointed leaves and masses of tiny white bells spreading into stars, each segment as fluffy as down. It is sometimes almost a small tree, and its abundant fruits, like small white beads, are food for many birds.

--- J.G. ---

ORCHIDS by Mr. Jim Peterson:

Our tree orchid has survived for another year - in fact the blossoms seemed more plentiful this year. Perhaps we should use the more widespread common name - Butterfly Orchid - rather than Tree Orchid. Although there is a number of species of tree orchids, only one species, Sarcochilus australis grows in the Latrobe Valley, in one small gully at Yinnar South.

This leads us to the question of why this orchid is so interesting. Apart from having a very attractive flower, it is our only local epiphytic orchid. Epiphytic orchids are those which grow without any connection with the ground, depending for nutrition upon dissolved substances in the rainwater, and from the decayed surface of its host. It is not, however, a parasite. It uses the tree mainly for support for its roots, and does not in any way interfere with the living part of its host. Some epiphytes live on rocks in the same way as on trees, their roots not connected with the ground soil.

Epiphytes are characteristic of tropical rain forests. Here, where it is the survival of the fittest, these orchids have stolen a march on other plants, absorbing the nutriment out of the moisture and the decayed surfaces of their host before it falls to the ground.

But how does a tropical type of plant come to be in the Latrobe Valley? The main factor is the Great Dividing Range and the narrow strip of land between it and the sea, stretching between Northern Queensland and Victoria. This mountainous area has ensured a good rainfall all along this strip of coast and, at the same time, protecting it from the westerly winds which are hot and dry in the summer, and very cold in the winter. To further assist in the build up of humid and warmer conditions is the Easterly aspect of this belt and its prox-

imity to the warm ocean currents sweeping down the East coast of Australia..

As there were no obstacles, like mountain ranges, in their pathway, there has been a slow movement of some of these tropical species down the coast. As time progressed some of the species completely adapted themselves to the slightly cooler conditions and can now only be found in the lower section of this belt. The conditions favourable to the build up of these semi-tropical conditions finish near Bairnsdale. Between Bairnsdale and the Latrobe Valley is the comparatively low rainfall area of the Sale-Maffra area. How the Butterfly orchid came to be on this side of the dry belt, and, for that matter how it reached Tasmania, can only be answered in our geological past. The fact remains, it is in the Latrobe Valley and Yinnar South is the only remaining evidence of this tropical orchid crossing the dry belt.

It is disturbing to see the land near this gully being subdivided, the boundary passing within 20 yards of the orchids. Any large scale clearing operations must destroy the conditions which make this little gully so different to others in the area, the balance is so slender.

--- J.P. ---

LYRE BIRDS AND BUSH FIRES by Mr. Jim Peterson:

With the recent fires still in our minds and having just returned from the South Cascade, I was more than casually interested in an article under the above heading which appeared in the 'Victorian Naturalist' of May 1932. It was written by Mr. M.E. Bill, a Forests Commission Surveyor, who wrote of the fire of the 5th. February 1932. This fire destroyed 40,000 acres of virgin forest, including the Talbot Creek area; and no doubt the nearby South Cascade. He pointed out the subsequent absence of bird life in the area, with the exception of Lyre birds which had returned to build their nests.

Later he was talking to a local bushman, Mr. Mitchell, who saved himself by staying close to the Thomson River. Six of his mates perished in the fire. Quoting Mr. Mitchell:- "From eight O'clock in the morning, three hours before the fire reached me, the lyre birds began to flock from the higher country to take shelter in the river, and, moreover, they could not be made to move from the positions they had taken up immediately on reaching the water. They were either stupified by the smoke (but extremely unlikely) or the instinct of preservation which had led them from the bush many hours before the fire would have actually reached them, overcame the usual timidity displayed towards human beings".

--- J.P. ---

WORKING BEE SOUTH CASCADE SATURDAY 27TH. MARCH 1965.

by Mr. Jim Peterson:

Apart from a fallen tree, the encroachment by ferns and some scratching by lyre birds, our work of previous years was in very good shape. The morning was occupied, firstly in improving that section of the track from the footbridge to the old tramway track, then building a new section of track linking up with the old logging track. This new section was necessary to avoid crossing the old tramway bridge, which is considered unsafe. With workers spread out along the track it was difficult to estimate the number of people in attendance. The fact that the days schedule was completed in the morning indicated that there was quite a lot of 'busy beavers'. However, it still came as a surprise, on our return for lunch, to find 14 cars neatly packed into the limited parking area.

At lunch we learnt more of the naturalistic instincts of the President, Mr. Homann, who was such a good host to the wee creatures of the bush. After lunch and regardless (?) of leeches, Mr. Homann spoke to members of the ferns of the locality. This allowed Mr. Frank Jones to clear some trees, and the author to start making an alternative route planned to return via the western side of the glade.

Thoughts of proceeding westward along the old tramway track were soon dashed by a monster of a tree lying across our path. We were compelled to go uphill and around its base, and by this time the main party had caught up to us. From then on luck was with the markers. I say luck because the party was so close on our heels that we couldn't afford to change our minds. After crossing the main gully and a small ridge, the track led to another gully, under another disused tramway bridge, and temporarily finishes a little further down the second gully.

I would like to take this opportunity to thank all who attended for their contribution to a very successful day. Future work will be the labelling of trees and plants, and the continuation of the track down the western side of the fern glade. That is assuming our navigation has been good! Now, I wonder... ?

--- J.P. ---

Editor.

G.T. Scanlan,
L.V.C. Hospital,
YALLOURN.

LATROBE VALLEY FIELD NATURALISTS' CLUB.

Club Aim:

The aim of the Club is to promote an interest in native plants, birds and animals, geology and marine life, and to assist in the establishment of nature reserves.

General Meetings:

General Meetings of the Club are held on the fourth Wednesday of each month at the Morwell High School, starting at 7.30 p.m.. After the conclusion of the business of the Meeting, a talk is given, usually illustrated by slides or movies.

Excursions are held on the weekend following the General Meeting, and constitute the working field days of the Club.

Annual Subscription:

The Annual subscription is 10/- for a single person, 1/- for juniors and 15/- for a family.

If you desire further information about the activities of the Club, you are invited to get in touch with any of the following;

Moe: Mr. E.H. Homann, 84 Hennessey Street, Moe.
 Mr. S. Belgraver, 179 Lloyd Street, Moe.

Morwell: Mr. J.M. Petsron, 14 Barry Street, Morwell.

Traralgon: Mr. K.G. Eldridge, 39 Lafayette Street.

Yallourn: Mr. G.T. Scanlan, c/o L.V.C. Hospital.

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EXCURSION NOTES by the Excursion Secretary, Miss Nancy Rossiter:

The June Excursion :

Mr. John Nicholas will lead the geology excursion to Coopers Creek on Saturday June 26th. Members are asked to meet at Erica opposite the hotel at 10.30 a.m. Those needing transport should make arrangements by Thursday June 24th. at the latest, with any of the following:-

Moo.	Mr. E. Homann.	Moo 295 between 8.30 a.m. and 4.30 p.m..
Yallourn.	Miss N. Rossiter.	Yallourn 52392.
Morwell.	Mr. J. Peterson.	Morwell 42129.
Traralgon.	Mr. K. Eldridge.	Traralgon 72503.

Wilson's Promontory Week-end October 23rd. - 24th.

There are only four vacancies left in the Tidal River Club Lodge on Saturday night October 23rd. Any other members who wish to stay at the Lodge should book as soon as possible. If there are more bookings than vacancies it may be possible to obtain additional accommodation at this stage but not if bookings are made later.

--- N. Rossiter ---

EXECUTIVE MEETING NOTES by Mr. S. Belgraver, Secretary:

As a bill is now before Parliament concerning the erection of a licensed Motel in Wilson's Promontory, the Field Naturalists' Club of Victoria has invited Clubs and members to approach their local member in this regard. The Meeting decided to approach Mr. J.C. Balfour, local member and Minister of Lands to oppose the erection of the Motel. Members Thomson and May are to be approached, and Club members are urged to write letters of protest to their local members.

The Club display at the Morwell Hobbies Exhibition was reported as being most successful. It attracted a number of visitors, and about 80 leaflets and 20 programmes were distributed. Mr. Jernakov was in charge of the exhibit, and he, Mrs. Kinniburgh, Mr. McElroy and Mr. Peterson attended the stand on the Friday, with Mr. Reg. Stevens on the Saturday. Thanks are extended to those who attended and to those who lent exhibits.

During the autumn about 400 seedlings were planted at the Hazelwood Arboretum. There are now 1100 trees planted, and after buying 120 plants from special funds, the number of species has been increased from 173 to 221. At the next working bee to be held on July 16th., nine plots will be checked and temporary labels replaced by permanent labels.

In respect to the proposed Car Stickers the Committee studied several excellent designs submitted by Mrs. Jacobson. The emblem was the Australian Grass tree, which had been suggested by a member of the special sub-committee. It was thought that an Australian native tree, such as the Red Gum, would have a wider appeal and be a more suitable design for a Car Sticker which it is hoped will be adopted by Clubs throughout Australia, than the Grass tree, and Mrs. Jacobson has been asked to submit a further drawing embodying the Red Gum as the emblem.

The next Meeting of the Executive will be held at the home of Miss Rossiter on the 9th. of July.

MR. FRANK JONES AND BIRD-BANDING: (Ed)

The writer recently had the privilege of spending a few hours with Mr. Frank Jones at Stoney Creek, north of Cowarr. Frank had arrived in the very early hours of the morning, long before the birds themselves had given thought to stirring, and parked his large caravan in the dry bed of the creek. His object of course was to continue his self imposed task of bird-banding. Alongside the caravan was a small waterhole, and other holes, apparently all very shallow, extended along the creek.

About the creek were varieties of tea tree, the kangaroo apple and other smaller plants, as well as the Red Box which were shedding the grevillealike blossoms. The site had obviously been carefully chosen, and the mist-nets strategically placed for the netting of the birds. One was placed among the kangaroo apple, another below the bank of the creek in the line of flight of birds approaching the waterhole, and a third along an old track leading out of the creek.

Checking the nets, removing the birds, identifying them and then banding and recording made this a full-time job. It was and is almost a one-man job, because the birds must be taken from the entangling threads of the fine net with careful experienced hands, and can be banded only when properly identified. This means of course, that only someone with the extensive knowledge possessed by people like Mr. Jones can be officially appointed to band birds in this long-term project being carried out by the Victorian Ornithological Research Group.

It was a pleasure to watch him at work - gently disentangling the birds which showed extreme fear (and were each more beautiful when seen at such close quarters), carefully examining them, affixing the appropriately sized and coded ring to a

dainty leg, recording the banding in the log book, and then the release of the bird. The freed creature usually flew to a near tree or bush, its fear forgotten in the need to look at the strange metal weight on one leg.

This work of Mr. Jones is very worth-while, it has an important scientific value, and the efficient manner in which it is being carried out by him is an indication of the need to specialise if one is to be in a position to contribute something to the task of conservation, whether it be of fauna or flora.

PROTECT AND ENJOY: THE PICKING OR DESPOILING OF PLANTS:

The matter is of such importance, that no apology is made for including a reference by Miss Jean Galbraith to the reported taking of orchids from Wilson's Promontory and to our obligations as professed field naturalists. Miss Galbraith writes;-

'Members of the Committee were distressed by the news that a member was seen removing orchids from Wilson's Promontory National Park. There is no doubt about the fact, but let us hope there is a mistake in the name of the Club involved.

It is possible that all do not know that any picking or removal of native plants from a National Park is prohibited by law.

Naturally our Club does not countenance law-breaking, and, that apart, the protection of native plants is a basic part of our policy.

For this reason we do not pick flowers or disturb plants on Club excursions, even where they are not protected. At most the picking of a small specimen is permissible if it is for identification, but usually there is someone present who can name the plant without disturbing it. Some plants are protected by law even outside National Parks. These include Wattles, Ferns, Orchids and Correa.

As a Club we like to go further than this and feel that no plant is despoiled by us. We try to protect and add to all natural beauty. If we do not it will not survive for us and for others to enjoy.

A picked flower is soon a dead flower! If not picked it can seed and increase. There are times when each one of us needs this reminder!!

--- J. Galbraith ---

WATER BIRDS:

Report of a talk on Water Birds by Mr. Roberts of the Fisheries & Wildlife Department on the 26th. May by Miss Betty Kemp.

At the last General Meeting, Mr. Roberts gave a most interesting talk, illustrated, on Water Birds, and what we might expect to find on the excursion the following Saturday, which he was to lead.

Unfortunately the low rainfall and high winds had completely dried out some of the morasses, Dowd's Morass in particular, where Ibis and Spoonbills were normally to be seen. However, it was hoped to visit Heart Morass, extending 5-6 miles between Sale Common and Lake Wollington where he had seen Pelicans, Bitterns, Dusky Moor Hens and Coots. At the top (Sea Spray) end of Lake Reeves there were thousands of Swans, Ducks and other birds, and possibly the smaller Sandpipers and Stilts. Lake Reeves has been declared a game reserve, along with many other areas in the Sale district, e.g. Clydebank, Sale Common, Dowd's Morass, a large section of Dutson Morass, and Jack Smith's Lake (Salt Lake). We would look at what we could in the time available to us.

Then followed a series of excellent slides on bird banding and duck trapping at Lara, east of Geelong, where approximately 100,000 birds had been trapped. The birds were lured into large net traps in the water, examined and banded. In this way it was possible to trace their migratory habits, and also to make wildlife reserves on their migration routes.

Slides were also shown of Wood Ducks, and red-eyed Grey Teal which is very like the Chestnut Teal, both of which it was hoped to see on the Saturday. Of particular interest was a portable X-Ray unit used to check, by the amount of shot they were carrying, the amount of shooting pressure the birds were under. The birds were sexed at the same time. I.C.I. supplied the caravans and also gave prizes of cartridges for bands sent in by shooters. When returning the bands, all information available about the bird should be supplied - when and where found, type of bird, condition, and also the crop if available. A slide by Ina Watson showed a Black Duck and chicks going down to water. Hawks and crows are their main enemies, the crows attacking the eggs.

A slide of Lake Cooper near Rochester revealed very little natural cover in this area, the natural habitat having been destroyed. Another showed open drums placed in trees for nests. Square boxes were now used, distributed throughout Victoria by the Fishing and Game Club. There were 400 at Dutson, while at Werribee Sewage Farm 600 eggs had been obtained from 50 drums by regularly robbing the nests in order to incubate the eggs at Head Office. A picture of mClead's Morass, Bairnsdale, showed very good cover. This was now a wild life reserve, and could be one of the best in Gippsland for duck breeding and

water fowl. There were more wild ducks destroyed in Victoria by shooting than any other game; 40,000 shooters were registered. Another slide showed Lake Warrenjo near Lake Cooper, very good for ducks, water birds and Brolgas. At Jack Smith's Lake, (known as Salt Lake) there were 150,000 Ducks. Longford Morass is to be a local section of the Department; it was dry at present, but there was very good cover and food for water birds. Middle Marsh, Kerang, was in a very good area for Wild Duck and water birds, known as the home of ducks in Victoria.

Further slides showed Galahs feeding on a crop (and therefore they were not protected) and a Thrush at nest, followed by slides of Sea Birds- the Seagull, one of the most beautiful of birds, which cleans up along the beaches; Gulls at Phillip Island; Fairy Tern chick and egg on the open beach; Gannets at St. Lawrence Rocks off Portland. Then came Lake Corangamite with Pelican eggs in an untidy nest on the ground and a Pelican chick; Black Cormorants at Hume Weir being weighed in a survey to gauge their effect on the fishing; Fairy Penguins (which spend most of their life at sea) in a parade at Phillip Island; Mutton Birds, shown off Phillip Island, build nests in burrows in the sand, and leave about Easter time. (Islands in Bass Strait are also breeding grounds).

Leaving the subject of Water Birds, a series of slides showed the Koala Reserve at Castlemaine, with dead and dying red gums as a result of overstocking; Koalas caught for crating and transport elsewhere and being liberated,; and a very young naked baby being taken from the pouch. This unique animal does not drink water, and its pouch faces towards the ground. The Tyers River area behind Moondarra has suitable food for koalas and would be a good liberation area for the future. Next came kangaroos, of which there are many in the Sale district, especially around Dutson. Farmers have permits to destroy them where found doing damage. Victorian kangaroos are grey, with a few reds along the Murray River.

Then came slides of Seals on Seal Rocks off Phillip Island, now a wild life reserve. In a current survey to find the effect of the seal population on the fish population, a helicopter is being used for landing because of very few suitable landing places and the fairly constant heavy seas. The seals can climb well and are very curious.

The Silver Grey Possum is probably the most common of its species - a lively animal often found in the metropolitan area. The Ringtail is also found in built-up areas. One slide showed damage to trees at Castlemaine caused by possums; young trees in pine plantations are also damaged by possums and Allied Rats. The Dormouse Possum, a few inches long with a lot of fat in body and tail, hibernates for a week at a time. The Pouched Mouse, smallest carnivorous marsupial (only a couple of inches long, with fat in body and tail) is of the same family as the Native Cat and Phascogales.

Gibson's Lagoon, originally a lake near Echuca, and Murphy's Lagoon, are well known for Water Rats which do a lot of damage in irrigation channels. The Platypus is quite common, found in almost all creeks and water systems in Gippsland, especially the Latrobe Valley. It relies on sensitivity of smell and feeds with its eyes closed. The male has venomous spurs.

Final slides showed Deer hunting at Wilson's Promontory, done at the Department's request to thin them out. The Hog Deer is a very pretty animal.

Mr. Roberts mentioned that the Fisheries and Wild Life Department was interested in locating a number of rare species - Feather-tailed Glider, Pygmy Possum, Giant Earthworm, Beautiful Firetail, and asked members to keep an eye out for them.

It seemed that all good things must come to an end and, on behalf of those present, Mr. Frank Jones moved a vote of thanks to Mr. Roberts, for his most interesting and informative talk, on the work of the Fisheries and Wild Life Department, and especially for the information on bird banding which is Mr. Jones's particular interest.

----- B. Kemp -----

FOLLOWING THE HONEYEATERS: by Mr. Frank Jones.

The fact that, to the amateur field naturalist the hill country of Gippsland provides an immense and exciting field of study is evident whenever we embark on some project or visit a new area and ponder on the significance of what we see. However, the realisation that we have (in my own case at least) only the beginnings of an understanding of our subjects, in no way detracts from the fascination and pleasure of evolving theories and seeking answers to Nature's puzzles.

The study of bird life as affected by the flowering and fruiting of native plants is full of intriguing problems, examples of which were encountered during a week-end visit to the Cowarr district on the 5th. and 6th. of this month. Over the week-end further evidence was obtained of the large number of honey-eaters in the area. Some mist-netting was done and 72 birds were banded, of which 57 were honey-eaters. In addition to the Spinebills, Yellow-wings and Crescent Honey-eaters previously reported, there were White-naped Honey-eaters (*Melithriptus lunatus*), and Brown-headed Honey-eaters (*M. brevirostris*) in considerable numbers. A new factor which may explain the presence of these birds is that the Red Box (*E. polyanthemus*) is beginning to flower profusely. If the Red Box is the attraction, did the birds anticipate the flowering by a few weeks, or is this part of their regular seasonal movement, or are they en route to the Banksias as previously suggested? It is perhaps significant that only one honey-eater has been retrapped (an Eastern Spinebill banded on the 16th

of May was caught again on the 6th. of June) compared with 17 of the stationary species - the Blue Wrens, Yellow Robins etc.. Further mist-netting at this spot and also in the Banksias of the surrounding country may shed some light on this matter.

The Yellow-faced Honey-eater which was the most numerous of the Honey-eaters in this area in the Spring and Summer seems to have disappeared entirely. This species moves to the North at this time of the year. Also of interest was the capture of a Lewin Honey-eater (*M. lewinii*) which must be rare in these parts. It was caught in a mist-net placed among a few large specimens of Kangaroo Apple (*Solanum avicular*). The fruit of this rather decorative plant, although supposedly poisonous, is eaten by a variety of birds including Satin Bower-birds; and also apparently the Lewin Honey-eater, as it was previously seen in the Kangaroo Apple before being caught.

The Hill Banksias (*B. collina*) and the Silver Banksias (*B. Marginata*) the main flowering period for which has just begun, will provide good areas for bird study over the next two or three months. The Places where these Banksias and some of the Grevilleas occur are often isolated patches, small in area, which because of their botanical interest and their value as nectar producing plants are worth retaining wherever possible. The aims of conservation of native plants and the protection of bird-life are obviously inseparable, and we are fortunate to have plenty of both to protect, and it may be that the best approach to conservation would be to indulge in a greater enjoyment of our many remaining natural unspoilt places rather than to deplore and lament the depredations of the various agents of industrial and agricultural expansion.

It is not that I think that the destruction of natural beauty should be condoned, but that with more people taking a delight and pleasure in nature, such destruction would not be so likely to occur.

----- Frank Jones -----

NOTES ON A THIRSTY ECHIDNA by Mr. J.W.S. Brewster of Nerrena via Leongatha:

A few weeks ago while the weather was still hot and dry an Echidna approximately half grown was in the dairy beside the bulk milk vat when my wife and I went to start milking in the afternoon. I suggested that it might be thirsty and my wife turned on the water tap to run slowly, and it drank for about fifteen or twenty minutes. A few days later some of my grandchildren found it and gave it a drink of water which it took readily; again later we saw it on the track out to the road and my wife got a small basin of water and it drank about a cupful. Seen again twice since the rain came the grass seeds

lodged among the hair and spines on the back had sprouted and gave the appearance of a green coloured mat.

--- John W.S. Brewster ---

FERNS:

At the General Meeting of the Club to be held on Wednesday the 28th. July, Mrs. E. Lyndon is to talk on ferns. She will also lead the excursion to Turton's Creek and/or Tara Valley on the following Saturday. With regard to these two Mrs. Lyndon has made the following interesting suggestion:-

'I am by no means an expert in this field. Any knowledge I possess is by courtesy of the F.N.C.V. Fern book; bringing home specimens, and working out their identity with the aid of a strong glass. It is a most interesting and rewarding branch of plant study, and one of the easiest for amateur botanists.

I intend to bring along samples of fertile fronds of some of the ferns most commonly met with and perhaps some enlarged sketches of the arrangement of the spores. I would like the evening of the Meeting to be one of informal discussion and to try and arouse interest in the ferns amongst more members. In short, a beginner's night!

And the excursion to follow?

I think it will depend upon the weather and how far members will want to go. Long mileage means less time for study in the field. Turton's Creek has a very rich fern gully right beside the road, but the leeches are troublesome in winter. I have listed twenty species of ferns in Foster's Gully at Yinnar, a very convenient spot for a winter ramble. We could include general natural history, especially fungi. This can, of course, be finalised at the July meeting.

--- E. Lyndon ---

SCIENCE PROJECT SUCCESS:

Congratulations are extended to Junior Member John Crane on his success in the recent science project competition conducted by the Science Teachers' Association of Victoria. It is understood that the competition was particularly keen, and that John's success was achieved by a great deal of thought and effort, the expenditure of yards of coloured film, and with the loss of many nights sleep. His project consisted of a biological experiment, necessarily carried out over a fairly long period, which it is hoped he can be persuaded to explain to members at some future meeting of the Club.

LATROBE VALLEY FIELD NATURALISTS' CLUB.

Club Aims:

To promote an interest in native plants, birds and animals, geology and marine life, and to assist in the establishment of nature reserves. To protect, so that we and others may enjoy.

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General Meetings:

Are held on the fourth Wednesday of each month at the Morwell High School, starting at 7.30 p.m.. A talk, usually by a specialist in some branch of natural history and illustrated by slides or movies and/or specimens, follows the short business part of the Meeting.

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Excursions or Field Days:

Regular field days are conducted on the Saturday following the General Meeting. A programme of meetings and excursions arranged up to February 1966 may be obtained from the Secretary.

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Annual Subscriptions:

10/- for a single person, 1/- for juniors, and 15/- for a family. Subscriptions may be paid to the Secretary or the Treasurer, Mr. E. McElroy.

.....

If you desire further information regarding the activities of the Club, you are invited to get in touch with any of the following:-

<u>Moe:</u>	Mr. E.H. Homann, 84 Hennessey Street.
<u>Morwell:</u>	Mr. J.M. Peterson, 14 Barry Street.
<u>Traralgon:</u>	Mr. K.G. Eldridge, 39 Lafayette Street.
<u>Yallourn:</u>	Mr. G.T. Scanlan, c/o L.V.C. Hospital.

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Contributions to this Newsletter:

Contributions relevant to the interests of members and the aims of the Club are invited and should be addressed to the Editor, G.T. Scanlan, c/o L.V.C. Hospital, or handed to the Secretary.

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LATROBE VALLEY FIELD NATURALISTS' CLUB.

PETROLOGY:

Resume of a lecture at the Morwell High School
on Wednesday 23rd. June 1965 by Mr. John Nicholas.

GEOLOGY:

Notes on the Field Day to the Cooper's Creek-Thomson
River area on Saturday 26th. June 1965 led by Mr.
John Nicholas.

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LATROBE VALLEY FIELD NATURALISTS' CLUB.

PETROLOGY by MR. JOHN NICHOLAS.

Report of a lecture to members at the Morwell High School on
Wednesday 23rd. June 1965.

The invitation to Mr. Nicholas to talk on the subject of Petrology for little more than an hour must have been received and accepted by him with some misgivings. The rocks which form the surface crust of the Earth have undergone many changes since it came into being some thousands of millions of years ago. The Earth's crust, and its rocks, are still subject to change, and the full story would take a long time in the telling - it was a story that could only be lightly touched upon in the short time available. However, Mr. Nicholas provided a most interesting, instructive and entertaining lecture on some of the properties of a few of the rocks, and of some of the methods employed in their identification.

He explained that Petrology was a study of the composition, structure and history of rocks and their mineral structure, and was therefore a branch of Geology. Paleontology and Mineralogy comprised a study of fossils and minerals respectively. The collection of rocks and minerals, appropriately labelled and displayed by Mr. Nicholas, added to the interest and value of his remarks.

Pieces of granite were passed to members, and it was explained that the main constituent minerals of this rock were quartz, feldspars and mica. These minerals in granite were comparatively large, resulting in a 'rough' coarse-grained rock, and therefore usually more easily identified than other fine-grained rocks. The nature and size of the minerals in granite were due to the fact that the molten magma from which it originated had intruded from deep down in the crust, and cooled at great depths below the surface, did so slowly, whereas the minerals in such rocks as basalt (which had been forced out in the form of molten magma upon the surface and cooled quickly) were usually small and not easily distinguished. The minerals in many rocks could only be seen and identified by means of a petrological microscope.

The granite specimens were followed by pieces of the minerals quartz, feldspar, and mica, which were passed around so that members could see the individual granite minerals.

Leading up to an explanation of the petrological microscope and its use in the identification of minerals and the rocks which they formed, Mr. Nicholas made use of a piece of rope and two metal stands to demonstrate the production of horizontal and vertical waves. The microscope utilised waves of light travelling by vibrations, and these waves were similar in certain respects to those shown, and to

the concentric waves produced on the surface of water. The transmission of light was a result of vibrations which took place at right angles to the direction in which light was travelling.

Some of the component minerals which make up the rock may be seen by the naked eye and identified by shape, colour or other property, but many may require to be studied through the petrological microscope for effective identification. Each mineral possesses properties which are more easily identified when magnified and seen through transmitted light. Further, certain properties of light and the results of passing light through various media, make possible the optical investigation of minerals. These properties include the breaking up of white light entering a medium into the colours of the spectrum - the production of interference colours when viewing some minerals through crossed polarisers by interference to the light waves; and the single refracting qualities of some minerals and the double refracting qualities of others. With some minerals the ray of light is bent singly, while with others there is double bending or refraction.

As viewing is not possible through rock in the mass it is necessary to cut and polish a piece of the rock under investigation to a suitable thickness for this purpose (a uniform thickness of 0.03 mm. is usually followed), and the resulting rock section is placed within a mountant of Canada Balsam, this then placed on a micro-slide, and covered with a thin cover glass.

The ordinary light transmitted through the microscope was not usually suitable for the identification of minerals in the rock section, and Mr. Nicholas explained that it was necessary to fit a Polariser and an Analyser to the microscope with the object of making use of the properties of light which produced to the eye the characteristic shapes and colours of particular minerals. A first demonstration involved the use of two polaroid lenses which he confessed had been purloined from the sun-glasses of Mrs. Nicholas. The polarisers (i.e. the polariser and analyser) were made of 'Polaroid', a synthetic crystalline substance which is also used extensively for anti-glare purposes. The earlier polariser was made of a clear calcite and named the 'Nicol Prism'. Polaroid is said to be opaque to one ray of light, and almost completely transparent to the other. This is due to the crystal orientation of the polaroid disc and its effect on the vibrations of the light passing through it. This means that light, previously vibrating in all directions at right angles to its direction of travel, on passing through the polaroid lens, becomes polarised, i.e. the light which passes through is vibrating in only one direction.

In passing light through a transparent mineral, the atomic structure of the crystal forming the mineral influences the

light vibrations, and this affects the image seen through the eye-piece (ocular) of the petrological microscope. An example of double refraction in this connection was given by Mr. Nicholas with a piece of clear Calcite. When the calcite was placed on one dot on a piece of paper two dots could be seen through the calcite.

The combined use of both polariser and analyser is usually known as 'crossed nicols', and the polarisers must be correctly crossed for effective results in viewing the rock section. The polariser is affixed to the microscope on a rotatable mount which enables correct crossing to be effected, and the mount is then rotated with the rock section between the polariser and analyser. The image takes on different forms and colours as it is rotated. The colours which are usually produced are due to double refraction of the minerals concerned and their orientation in the rock section. The order of colour (in accordance with Newton's Scale) depends upon the thickness of the rock section. The colours produced are important factors in identifying the minerals.

Several rock slides were projected on to a screen by means of a modified projector, which made viewing possible and convenient for a larger audience than was possible through the ordinary microscope. The rock section slides were first projected using ordinary light, and then successively the polariser, and the polariser and analyser together, and the properties, as shown by the different methods, of the minerals explained. The slides included a section of one of the feldspars in order to demonstrate 'twinning', a property possessed by some minerals. Twinning is usually achieved through crossed polarisers, and is an important feature in the recognition of some minerals.

The writer of this resume admits that it is in some respects inadequate and does not do justice to the lecturer. The lecture itself served to give members a fascinating if necessarily brief glimpse into the world of rocks and the minerals of which they are composed. It also served to demonstrate the immensity and complexity of the subject of Petrology.

--- G.T.S. ---

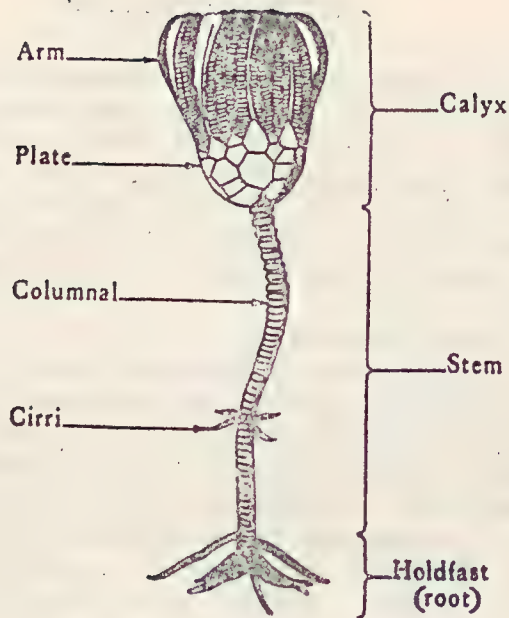


FIG. 136 -Typical modern crinoid, or "sea Lily" showing principal parts. (By permission from Texas Fossils by W.H. Matthews 111, Bureau of Economic Geology, University of Texas, Austin.)

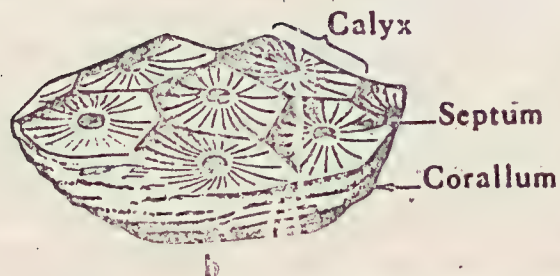
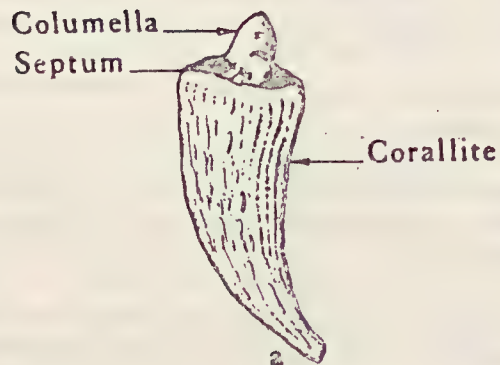


FIG. 137 -Morphology and principal parts of corals. (a) Typical solitary of "horn" coral (b) Colonial or compound coral. (By permission from Texas Fossils by W.H. Matthews 111, Bureau of Economic Geology, University of Texas, Austin.)

The corals are of great variety also, the stony corals are rock builders, and are said to be the most important and abundant of fossils. The animal itself is known as a 'polyp', and secretes a cup-shaped limy covering, which forms the large masses and areas of coral reefs throughout the world. The 'solitary' corals form a horny or button-like exoskeleton, and the 'colonial', the species seen in the limestone above the Thomson River, forms a 'corallum', consisting of a calyx bounding radially arranged partitions, by which they may be readily recognised in the rocks.

Having disposed of the fossils, at least for the present, and collected in all a few cubic yards of heavy rocks to be placed in car boots, the party continued on down the track to what had been the Cooper's Creek township. Here the Coppermine Hotel temporarily diverted some members from matters of geological interest. A locality plan attached to the front wall of the hotel (and attributed to a draftsman named 'Mr. Chalk. E. Bones') indicated where other buildings and places had been, but most of the buildings had either been removed or burnt, and an untidy growth of blackberries and scrub hid the outlines of the township. The old 'pub' had clung to life long after the township itself had died, and was only delicensed in 1952. Alas now a 'pub with no beer'.

Cooper's Creek has a history almost contemporaneous with that of Walhalla, for copper was first found in the former place in August 1863, some months after the discovery of the rich Cohen's Reef at Walhalla. The copper was found on the steep slope of the hill on the eastern side of the Thomson River, close to its junction with the small Cooper's Creek, and almost certainly while prospecting for gold, which was also found in the vicinity. The settlement probably came into being when work started mining the copper ores from the outcrop by open-cut working. Mr. Nicholas showed members where the crude smelters had once stood on the opposite, western bank of the Thomson, and where the copper had been treated and sent out in the form of regulus and rough copper. There was little remaining here other than pieces of slag and weathered copper ores. These were typically bright green or blue, being hydrated copper carbonates and related to the naturally occurring malachite (green) and azurite (blue).

At the site of the former smelters Mr. Nicholas drew attention to the jointing in the steeply dipped sandstone which extended across the river into the hillside opposite, and through which the waters of the river had worn their relentless way. The sandstone was further evidence of the accumulation of sediments on the floor of the sea, and the dipping of the rocks indicated the movements that had taken place in much earlier times.

Although the copper mine was little more than a strong-armed stone throw across the river, a journey of some miles was necessary to reach it from the Cooper's Creek side of the river. Formerly,

A Glimpse into the Past



-Restoration of a "garden" of "sea lilies" (crinoids) of Mississippian time. Crinoids grew in great profusion in the portion of geologic time and were of many different types. Another echinoderm, a brittle star, is on the bottom in lower foreground. (Restoration by George Marcand, courtesy of Chicago Natural History.)



-Crinoids embedded in Mississippian limestones of Iowa (*Dichocrinus inornatus*, reduced about one half.) (Courtesy of Dr. G. A. Cooper, U. S. National Museum.)

nearby had been a bridge over the Thomson which continued the road through Cooper's Creek, over the river, and passed close to the track which led to the lower tunnel of the mine, and the now overgrown track to the upper tunnel. Thence up the steep hill and to wind around until it joined the road via the Happy-go-Lucky to Walhalla, a distance of about five miles.

From Cooper's Creek the party followed the road which crossed the old railway bridge and passed close to the Platina siding to join the Moe-Walhalla Road. A stop was made to view a synclinal fold in a cutting on a bend of the road, another reminder of the tremendous folding and warping of the country. A syncline is an inverted arch or a trough of a fold in rock and is due to compression which may form synclines or anticlines, the latter taking the form of an arch. At Walhalla some of the party stopped for lunch and to visit the museum, while others proceeded up the Happy-go-Lucky Road towards the Copper Mine. This road was one of the two original pack tracks into Walhalla from Gippsland and, until the wooden decking of Brunton's Bridge over the Thomson was burnt, an important wagon and coach road to the Happy-go-Lucky (Pearson's) settlement and to Walhalla. Eventually the whole party met up at a point near the river where the Cooper's Creek bridge had once allowed a crossing, and then proceeded on foot to the copper mine. Here Mr. Nicholas explained the geological features of the mine as a prelude to entering the lower tunnel. The copper ores occur in a diorite dyke, containing it was said, hornblende, with pyrites and other ores of copper. A plan of the mine drawn in 1899 shows the western side of the dyke extending towards the river as consisting of slates, shales and sandstones, with siliceous grits, while the eastern wall of the dyke was of hard quartzite.

A description of the area in the 'Prospectors' Guide', (Vict. Dept. of Mines. 1958), is of interest;- "Silurian shales, slates and sandstones with some intercalated (interposed) limestones, grits, conglomerates, and volcanic rocks outcrop over an extensive area in Central Victoria, a line drawn from Melbourne to Heathcote approximately marking their western limits, and another line from Lindenow to near Benalla forming the eastern boundary... In places the strata are converted into quartzites, schists and phyllites by intrusive granites. These strata are of marine origin. In some districts (Walhalla etc.) they are ... acutely folded ... Very rich deposits have been worked in the belt which extends through Walhalla ... where the auriferous belt is typically associated with dykes... Metals of the platinum group have been found by assay in appreciable quantities in some mineralised basic dykes (Walhalla & Matlock), which also carry copper ore and small quantities of manganese, cobalt and nickel ..."

The Thomson River Copper Mine has had periods of intermittent, unprofitable working since operations first began in 1863. The only apparent short period of profit was between 1874 and 1881, when it was worked by the Walhalla Copper Mining Co. N.L. High costs of operation, cartage, supplies etc., and the fact that most of the companies and syndicates working the mine from time to time lacked sufficient capital, were stated to be the main causes for failure. A copper miner from Kapunda in South Australia, who formed a syndicate to work the mine in 1866, had written;-"... the quality and quantity of ore in the lode surpassed anything known on the renowned Burra or Moonta (copper) fields in South Australia." Mr. Nicholas confirmed that the area was rich (The present lessee stated that the best ore obtained from the mine yielded an incredible percentage of over 20% copper, whereas Mt. Lyell in Tasmania is considered economic at 0.4 % !) in the variety of its mineral species, as at least nine varieties of copper ores had been reported, in addition to those of gold, platinum and tin.

The Copper Mine is again being worked, and there is a tramway leading from the lower tunnel entrance to a crusher perched, it seemed, rather precariously on the narrow track above the Thomson River. A great deal of work has been carried out in clearing debris from shafts and drives, and from the entrance to the upper tunnel. It would appear that the present syndicate deserves success in what is a courageous enterprise.

Numerous interesting specimens were picked up by members, and taken to Mr. Nicholas for identification and explanation; there was a general wandering back to the cars; a few discussions on the events of the day - and the field day was over!

This was a profitable (from the point of view of knowledge gained) day, a worth-while field day, and one which could well be repeated perhaps elsewhere. The work involved in preparing for the field day, and the efforts and leadership of Mr. Nicholas are, without doubt, greatly appreciated by those who attended.

--- G.T.S. ---

(Ed)

LATROBE VALLEY FIELD NATURALISTS' CLUB.

MONTHLY NEWSLETTER.

'PROTECT

AND

ENJOY'

President:

Mr. E. Homann,
84 Hennessey Street,
MOE.

Secretary:

Mr. S. Bolgraver,
179 Lloyd Street,
MOE.

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Yallourn,

ISSUE NO. 20

July 1965.

Dear Fellow Field Naturalists,

This Newsletter continues to provide the variety for which the thanks of members are due to the contributors. Unfortunately, space and time do not permit the inclusion of all the excellent material available, some of which must, of necessity, be deferred until the next or later issues. Because of its length also, the reports of the lecture by Mr. John Nicholas at the last General Meeting of the Club, and of the excursion to Cooper's Creek etc. on the following Saturday, will be issued to members separately.

List of Protected Plants in Victoria: The list of protected wildflowers and native plants in this Newsletter is that included in The Wild Flowers and Native Plants Protection Act 1958 which was proclaimed in February 1964. It is suggested that members carefully study the list, keep it for ready reference and, may we all faithfully protect them!

Excursion Notes by the Excursion Secretary, Miss Nancy Rossiter:

The excursion on Saturday 31st. July will be to Foster's Gully, Yinnar, by the kind permission of Mr. Quigley on whose property this gully lies. The leader, Mrs. E. Lyndon, will give a talk on Ferns at the meeting on Wednesday night 28th. July, which will be a preparation for the field day to follow.

All cars should assemble at the Yinnar Butter Factory at 10.30 a.m. on Saturday 31st. July.

Transport arrangements for the excursion should be made at least two days beforehand with any one of the following:-

Mr. E. Homann. Moe 295 between 8.30 a.m. and 4.30 p.m.
Mr. J. Peterson. Morwell 42129.
Mr. K. Eldridge. Traralgon 72503.
Miss. N. Rossiter. Yallourn 52392.

Wilson's Promontory Week-end 23rd-24th.

October.

Accommodation has been booked for 36 members at Tidal River for Saturday night 23rd. October. Any families who still want accommodation are advised to write direct to the Victorian Tourist Bureau, as there may be some cottages available for the night of October 23rd. if an early booking is made.

Further particulars regarding the arrangements for this week-end will appear in a later Newsletter.

-- N.R. --

Report of the Executive Meeting 9th. July by
the Secretary, Mr. S. Belgraver.

Finding of Rare Orchid: The Shire of Traralgon was approached regarding the taking of steps for the protection of the rare *Pterostylis fischii* which had been found south of Traralgon, and has advised that the Shire President and the Engineer have been authorised to arrange for this to be done. Mr. J.H. Willis of the National Herbarium, Melbourne, has also been advised of the discovery.

Motel at Wilson's Promontory: The Club's letter protesting against the building of a motel at the Promontory has been passed on to the Minister for State Development by the Minister for Forests. However, Mr. May M.L.C. has advised that, although he shared the concern of members, legislation permitting this had already been passed by Parliament.

Hazelwood Pondage: The Superintendent of General Services, S.E.C., Mr. G. Black, has advised, in order to assist in fixing boundaries at the Arboretum, following the projected raising of the water level, the position of fences at the northern end and the south-western corner will be altered.

Effect of roadside burning on the survival of wild flowers: Professor Turner is to be asked to advise on the effect of burning on wild flowers and orchids.

Victorian National Parks Association: It is to be recommended to members that the L.V.F.N.C. become a corporate members of the Association.

Club Library: The Club Librarian, Mr. J. Peterson, has a copy of "Key to the identification of Eucalypts in the absence of flowers", which is available for reference by members.

Next Executive Meeting: This will be held at the home of Miss Jean Galbraith, Tyers, on Friday 6th. August at 7.30 p.m..

--- S.B. ---

Report of the May Excursion by Mrs. Ellen

Lyndon:

One of the notable things about our excursion to Sale in May was the keenness of some of our younger members in compiling lists of the birds seen during the day's travels, which, I hope, will appear in the Newsletter.

From Sale our route led south toward the sea. An historic road this, for up this way from Port Albert came all the first settlers to Gippsland, trudging the sandy miles beside the bullock wagons, long before an overland route had been pioneered from Melbourne, or a railway dreamed of. For a few miles

we followed the Punt Lane, where it runs between the broad expanse of Sale Common on the left, and the curve of the Canal on the right hand. The Common is dry just now but in times of severe flood when the three rivers come down, the whole landscape, road, river and swamplands, are one wide expanse of water.

The Macalister River, curving round from Glenmaggie through Maffra, runs into the Thomson, and the Thomson then joins the Latrobe just above the Swing Bridge, to flow on a few miles further into Lake Wellington. A glance at the map will show that somewhere on the broad bosom of the lake the Latrobe picks up the Avon and the two combine to form MacLennan's Strait joining Lake Wellington to Lake Victoria.

In earlier days the Gippsland Lakes were mainly freshwater lakes making only intermittent contact with the sea. In times of flood, however, with the four rivers discharging their loads into the lakes, the waters would back up and fill Lake Reeve, our destination for this day's water-bird watching, and probably many other low lying swamps. When water pressure became too great a channel would be forced through the sand dunes to the ocean, usually at a spot some two miles east of the present man-made Lakes Entrance. It must have been a sight to see as the muddy flood poured out to discolour the sea for miles around. This outlet was uncertain and often shifted or silted up. Nevertheless, steamers from Melbourne managed to negotiate it, sometimes needing the help of the tug stationed there, until the present entrance was completed in the late eighteen eighties.

The history of the river trade and its shipping makes fascinating reading today. Steamers plied up the Mitchell to Bairnsdale; up the Avon to Clydebank; up the Latrobe to Sale wharf just below where the Swing Bridge spans the river now. This wharf, prior to 1883, was one of the busiest river ports in Victoria. Two hotels, (we passed quite close to the site later in the day) the Swan and the Victoria, catered for travellers. The crews of the vessels, we are told, supplemented their wages by supplying wild birds for the Melbourne markets. The few derelict aborigines of the district brought them parrots, cockatoos and magpies, and offered swan eggs for sale to the hotels. The last of these poor blackfellows, known as King Billy Brown, died about 1898. How often do we read of the last remaining blacks hanging round the settlements being called King Billy this or that. Yet anthropologists tell us that the tribes knew neither King nor chief but were governed by a council of the old men.

The Swing Bridge was erected in 1883, the middle section hand operated to revolve and allow the steamers through. The bridge-keeper's cottage was packed tight into a nook hard by the bridge, on the right as one crosses from Sale. In 1888 the Canal was completed, opening out of the Thomson above its junction with

the Latrobe, to bring the river traffic right to the foot of the main street of the town itself.

Well, our party proceeded over the bridge and around the causeway close by the bank of the Latrobe where it sweeps in to join the Thomson immediately above the bridge. This portion of the Latrobe was, and perhaps still is, known locally as the Glengarry, perhaps as a tribute to McDonnell, Laird of the Glengarry clan, who in 1841 came from Scotland with his retainers to live for a short while in feudal state at Greenmount, near Yarram. The road crosses another bridge here over the Long Waterhole, and a wide swamp that, with the Sale Common, is now a Fisheries & Wildlife Game Reserve. Close by the end of the bridge we entered Longford village where travellers once rested their animals before plunging into the fearful bogs that lay between them and the township of Flooding Creek that is now the City of Sale.

From the river swamps the road rises steadily up (geologically speaking) the Rosedale fault, the upthrust ridge that has determined the course of the Latrobe to the sea, and soon we turned into the Seaspray road and passed the radio masts on Brewer's Hill. On a clear day there are glorious views from here over the Sale plains, and the lakes with the blue wall of the Australian Alps in the far distance. Much of the poor land of the coastal plain has been planted with pines. What wonderful wildflower country it used to be !

Arrived at the shallow shores of Reeve's Lagoon near Seaspray township the party split up, some to begin bird watching in earnest under Mr. Robert's guidance and others to scramble over the thin line of dunes to the Ninety Mile Beach. All gathered for lunch in a grove of beach tea-tree, amongst the bleached shells of an ancient aboriginal midden, grilling our steak where they had scorched their shellfish. Some vandal had fired the low scrub nearby and the unsightly can and bottle middens of twentieth century savages were revealed in all their nakedness.

This strip of sand must indeed have been a happy hunting ground for the original inhabitants with the waterfowl flocking to the lake; the bush lively with animal and reptile life; and shellfish for the digging on the beach. Almost every ridge and hillock bore signs of former occupation, but of stone fragments there seemed to be none. This was the country of the Brataualong, whose territory ranged from Cape Liptrap to somewhere in the vicinity of the Latrobe River. They were a tribe of the Kurnai people who occupied most of Gippsland.

All too soon our leader moved on, followed by his dutiful entourage, by way of a narrow wheeltrack between the teatree and the banksias; many miles of tempting spots, noisy with wattlebills and other honeyeaters, slid by as our daring drivers hurled their

vehicles at the sand dunes. Another stop was made by the beach in one of the modern seaside developments where we marvelled at the miles of bitumen and the elegant names on the empty streets. Thence we came by Dutson Downs, with distant views of the Lakes, and stopped to admire a flock of Ibis.

Back at the Swing Bridge in late afternoon our fifteen cars swung hard to the right along the north bank of the Latrobe, following a bridle path through the red gums. This route too held some adventures for us and not all the cars cared to venture through the watercourses in the river banks. Both Dowd's and the Heart morasses were unfortunately dry and few birds were seen. In some years it is a wonderful area for all the waterfowl and waders. Just at dusk we crossed the long white bridge over the Fresh Waterhole, heading inland again. These so-called waterholes, (we crossed one at Longford earlier in the day), are long and winding lagoons which can be traced here and there through the wide morasses that fringe the river on its course to the lake. They are probably old courses of the river itself.

Our more ardent observers were last seen making their way upstream in the twilight as we Leongathans set out on the six-mile journey through the farmlands of the Heart making towards Sale and home.

-- Ellen Lyndon --

The Birds Seen on the Excursion by John Milovanovic:

As the object of the excursion in May was to look for waterbirds, I noted their names as we drove along. There were many flocks of both White and Grey-necked Ibis along the roadside, and they were poking their long curved beaks into the grass looking for grubs.

Just before we came to Rosedale, Mrs. Lyndon showed us a dead Red Gum tree with a long scar on one side of the trunk. This was where a blackfellow had once chopped out the slab of bark to make a canoe.

Near Sale we saw many birds such as Grey Teal; Chestnut Teal; Grebe; Black Duck; Black Swans; Coots and many others. When we met the rest of the party Mr. Roberts led us to Seaspray, about 20 miles to the south of Sale on the Ninety Mile Beach. On the way we stopped to see an Egret near the Longford Bridge, and further along watched a Wedge-tailed Eagle circling.

At Seaspray we turned to the left and ran along a narrow strip of land between a wide swamp and the sea. The long shallow water is called Lake Reeve, or Reeve's Lagoon, and there were many birds to be seen, including Red-capped Dotterels and the White-fronted Dotterels; Black Swans, and, on the other side of Lake Reeve we saw a Sea Eagle. As we drove along the long winding road we saw many white Seagulls.

We had lunch under a clump of Beach teatree and later watched Gannets diving. Then we drove on through Banksia trees where we saw Wattlebirds and the Yellow-winged Honeyeaters, until we came to Dutson Downs. Here we turned to the left where the road led us back to the Swing Bridge, and Mr. Roberts, the leader, turned down along the north side of the Latrobe River, along a dirt track through Red Gum trees.

Along the way we saw more White Ibis; a White-faced Heron; many Eastern Swamp-hens; a Swamp Harrier and many others.

-- J. Milovanovic --

(John's list of birds noted on the excursion is being held to a later issue of the Newsletter. (Ed)).

The Goshawk and the King Parrot by Mr. Tom Moretti:

While on a bird-spying expedition in the foothills behind Toongabbie on the last week-end in May, I found on the road the body of a Goshawk. Being inquisitive I saw one red-tipped feather, then I looked further and found the beautiful body of a King Parrot. Strange to say neither bird was bleeding and both were still warm. The only explanation that I can arrive at is that the hawk struck the parrot and misjudged the ground distance and nose-dived into the hard side of the road and broke his (or her) neck.

They were both good specimens and were duly forwarded to the Curator of Birds, National Museum, Melbourne.

The reason I was in the area was that a resident had told me Fire-tail Finches were to be seen there, but I did not see any, although there was a noisy variety of birds.

There may be a moral in this little story - do not kill yourself going after your dinner !

-- Tom Moretti --

Reflections on a holiday Trip by Mrs. M. Hague:

Recently on my annual holiday I was sorry to see the effects of the drought in southern New South Wales. Firstly we visited the eastern side of Lake Tyers which is isolated enough to be a naturalist's paradise. Here live kangaroos and wallabies and all kinds of birds; the coastal bush is a jungle of native trees and shrubs, while the ocean beach is littered with countless

shells.

It is here that 'Narguns' Cave is situated - the aboriginals of the district will not go near this place, being terrified, for they still believe that the 'Nargun', a monster with a body of stone and arms of flesh lives in the cave and will grab them. The Den of Nargun is also associated with this legend.

At Mallacoota the pretty Blue-grey Kangaroos are becoming numerous, and we sat and watched a mob feeding in the bush; many types of Honeyeaters abound as there is plenty of nectar for them in the native Banksias. I also saw Ibis and Cormorants paddling and fishing in the water. One quaint Pelican sailed sedately on the inlet.

The island of Gabo could be seen quite clearly every day. It is a sanctuary for bird-life, and Fairy Penguins. Moving on to Edrom, on Twofold Bay N.S.W., there was little to see and I looked in vain for a Lyrebird for I knew they usually abound here. The bush was so tinder dry there was little natural food. However, between Boydtown and Eden I was fortunate enough to notice one beautiful brown male Lyrebird daintily drinking from a tiny dew pool.

While staying at Edrom (a mansion built by John Logan, a Scot, in 1911, and now a guest house) we enjoyed the superb view over the bay to Eden. The water is well known as fishing grounds. We saw Dolphins leaping, and at night the light from a single fishing boat anchored on the bay glimmered and reflected on the water. I was told that one (female) Whale comes each year into a secluded part of the bay at Fisherman's Creek to give birth to her baby.

As we returned home via Sydney, Canberra and Cooma the countryside was bleached and dry, telling the sad story of drought.

-- M. Hague --

The Avian Camp-followers of Boola: by Mr. Frank Jones.

It is expedient when one's vocation requires that work must be done in the forest areas, to set up camp in the bush as close as possible to where the work is being done. It follows that the camp-site is often in a quiet out-of-the-way place where the surrounding country, although never quite in its original, natural state, still retains an interesting variety of native plants and animals. Of particular interest are the birds to be found in these places, and when encouraging them to come around the camp by placing food and water out, for them it is always exciting to see just what kinds will become regular visitors to the new feeding spot. In the winter liberal supplies of termites obtained from the nearest bull-dozing operations and

scattered around the camp every day never fails to attract a mixed company of the more common insectivorous birds, while a tray of sugar syrup or honey placed on the bird table entices honey-eaters to come down and feed.

Often interesting complications occur when birds are being artificially fed in the bush. Sometimes a voracious species will monopolise the feeding ground to the exclusion of other birds, but by using various simple devices depending on the type of birds involved this trouble can usually be overcome. At my present camp, at first, it appeared that the place would be dominated by a flock of Pied Currawongs (*Strepera graculina*) which, although they are interesting birds themselves, become rather a nuisance when other birds are wanted for observation, photography and banding. This problem was partly overcome by the fact that I was feeding the birds mainly on termites, which are so small that, although eaten by the Currawongs, it takes so many to provide a square meal for these birds that they usually tire of picking them up and fly away leaving plenty for the smaller birds. I was also able to foil the Currawongs when they began to take all the honey at the bird table. Over the honey tray I placed a board with small holes in it through which the honey-eaters can easily reach the honey with their small beaks and brush tongues, whereas the holes are too small for the large beaks of the Currawongs. However, for the present time at least, the Currawongs themselves have solved the problem by finding a more prolific feeding ground where road-making works are in progress in the bush a few miles away, and the flock can now usually be found along the new road feeding on the numerous creatures that are uncovered whenever roads are made in timber country.

Some birds seem to be very quick at locating a new source of food, and having found it in a certain spot continually and deliberately return in search for more. When first setting up camp on the present site I noticed a White-eared Honey-eater (*Meliphaga leucotis*) in a patch of Dogwood (*Cassinia aculeata*), and it was peering out in a most enquiring manner. Deciding to take advantage of its inquisitive nature I put out a tray of honey straight away, and several days later observed that the White-ear was making frequent visits to the honey tray, and later on a Crescent Honey-eater (*Phylidonyris pyrrhoptera*) was also feeding from the honey provided.

Now having spent nine weeks at the same location I have, apart from the birds already mentioned, six kinds of birds coming every day for food. They are Blue Wren, White-browed Scrub-wren, Yellow Robin, Grey Thrush, Olive Whistler, and Grey Butcher-bird. Occasionally a Ground Thrush will join in the feast, and recently the Thornbills have been dropping in at odd times.

When a number of birds can be induced to feed at a certain spot there is always the possibility of other more unusual species being attracted, and in the present instance the White-naped Honey-eaters (*Melithreptus lunatus*) have appeared to be interested in the proceedings, although they have not actually been seen to feed at the bird tables. This bird is not rare but it would be quite a novelty to have them feeding as subjects for observation and photography.

The Yellow-tufted Honey-eater, not often seen in this district, has been present in considerable numbers this Winter, and the occurrence of this bird in greater numbers than usual could be connected with the drought conditions further North, or possibly the bush fires in East Gippsland last Summer.

Unfortunately, due to the difficulty of obtaining bands of the appropriate sizes at present I have banded only seven birds at this place, but the few banded birds are continually turning up among the feeding flock, and more banding will be done here as soon as possible.

-- Frank Jones --

From 'The Story of Our Earth' by Richard Carrington.

'If we imagine the whole of earth's history compressed into a single year, then on this scale, the first eight months would be completely without life. The following two months would be devoted to the most primitive creatures ranging from viruses and single-celled bacteria to jelly-fish, while mammals would not have appeared until the second week in December. Man, as we know him, would have strutted onto the stage at about 11.45 p.m. on December 31st. The age of written history would have occupied little more than the last sixty seconds on the Clock'.

A Note Regarding Contributions:

Although there is a small carry-over of material for the next Newsletter, a steady flow of articles is required. The continued co-operation of members will be appreciated.

-- Ed --

List of Protected Wild Flowers and Native Plants:

<u>Botanical Name.</u>	<u>Vernacular Name.</u>
Acacia.	Wattles - all except armata.
Aciphylla glaucialis.	Snow Aciphyll.
Alyxia buxifolia.	Sea Box.
Banksia.	Banksia - all species.
Boronia.	Boronia " "
Bossiaea walkeri.	Cactus Pea.
Brunonianaustralia.	Blue Pincushion.
Calectasia cyanea.	Blue Tinsol Lily.
Calostemma purpureum.	Garland Lily.
Calytrix.	Fringe-myrtles - all species.
Celmisia.	Silver Daisies " "
Correa.	Correa or Native Fuschias.
Crinum flaccidum.	Darling or Murray Lily.
Epacris impressa.	Common Heath (State floral emblem)
Eremophila.	Emu bushes - all species.
Eriostemon.	Wax-flowers " "
Gaultheria appressa.	Waxberry.
Gompholobium.	Wedge-peas - all species.
Grevillea.	Grevillea - " "
Hardenbergia violacea.	False Sarsaparilla or Purple Coral-pea.
Helichrysum acuminatum.	Orange Everlasting.
" bracteatum.	Golden Everlasting.
Howittia trilocularis.	Blue Howittia.
Lhotzkya alpestris.	Snow Myrtle.
Livistona australis.	Cabbage Fan-palm.
Micromyrtus ciliatus.	Fringed Heath-myrtle.
Melalouca squamea.	Mealy Honey-myrtle.
" wilsonii.	Violet Honey-myrtle.
Olearia frostii.	Bogong Daisy-bush.
Orchidaceae.	Orchids - all species.
Oxalis lactea.	White Wood-sorrel.
Prostanthera	Mint-bushes - all species.
Pteridophyta.	Clubmosses, ferns and fern allies - all species.
Stylidium graminifolium.	Trigger-plant.
Telopea oreades.	Gippsland Waratah.
Thryptomene.	Heath-myrtles or Thryptomenes- all species.
Thysanotus tuberosus.	Fringe-lily.
Wittsteinia vacciniacea.	Baw Baw Berry.

N.B. It is important to remember that the prohibition exists in all parts of Victoria throughout every month of the year.

LATROBE VALLEY FIELD NATURALISTS' CLUB.

Club Aims:

To promote an interest in native plants, birds and animals, geology and marine life, and to assist in the establishment of nature reserves. To protect, so that we and others may enjoy.

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General Meetings:

Are held on the fourth Wednesday of each month at the Morwell High School, starting at 7.30 p.m.. A talk, usually by a specialist in some branch of natural history and illustrated by slides or movies and/or specimens, follows the short business part of the Meeting.

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Excursions or Field Days:

Regular field days are conducted on the Saturday following the General Meeting. A programme of meetings and excursions arranged up to February 1966 may be obtained from the Secretary.

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Annual Subscriptions:

10/- for a single person, 1/- for juniors, and 15/- for a family. Subscriptions may be paid to the Secretary or the Treasurer, Mr. E. McElroy.

.....

If you desire further information regarding the activities of the Club, you are invited to get in touch with any of the following:-

Moe: Mr. E.H. Homann, 84 Hennessey Street.

Morwell: Mr. J.M. Peterson, 14 Barry Street.

Traralgon: Mr. K.G. Eldridge, 39 Lafayette Street.

Yallourn: Mr. G.T. Scanlan, c/o L.V.C. Hospital.

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Contributions to this Newsletter:

Contributions relevant to the interests of members and the aims of the Club are invited and should be addressed to the Editor, G.T. Scanlan, c/o L.V.C. Hospital, or handed to the Secretary.

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LATROBE VALLEY FIELD NATURALISTS' CLUB.

MONTHLY NEWSLETTER.

'PROTECT

AND

ENJOY'

President:

Mr. E. Homann,
84 Hennessey Street,
MOE.

Secretary:

Mr. S. Belgraver,
179 Lloyd Street,
MOE.

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August 1965.

EXCURSION NOTES by the Excursion Secretary, Miss Nancy

Rossiter:

This is to be on Saturday August 28th with Mr. Bob Auchterlonie as the leader of a visit to three of our local reserves.-

1. The Edward Hunter Pool Reserve.
2. Bird Gully.
3. Hazelwood Arboretum.

Members are asked to assemble at 10.30 a.m. in Fowler Street, Moe, opposite the Presbyterian Church. The rest of the morning will be spent exploring the Edward Hunter Reserve and we will lunch there. In the afternoon the party will proceed to the Hazelwood Arboretum via Bird Gully.

Transport arrangements as usual should be made two days beforehand with any one of the following. Morwell members should note that Mrs. F. Kinniburgh is their contact member for August.

Moe. Mr. E. Homann Moe 295 between 8.30 a.m. & 4.30 p.m.
Morwell. Mrs. F. Kinniburgh. Morwell 43085.
Traralgon. Mr. K. Eldridge. Traralgon 72503.
Yallourn. Miss N. Rossiter. Yallourn 52392.

Wilson's Promontory Week-end October 23rd - 24th.

Members who have booked beds through the Club at the Tidal River Lodges on Saturday night October 23rd. should pay the accommodation charge of 10/- per person to the Excursion Secretary by Saturday August 28th.

There are adequate supplies of crockery, cutlery, and cooking utensils in the lodges. A mattress, pillow and two blankets per bed are also supplied, but members should take their own linen and food.

--- N.T.R. ---

NOTES ON THE EXECUTIVE MEETING by the Secretary, Mr. S.

Belgraver:

Correspondence received included a letter from the Editor of 'The Formula', the monthly Newsletter of the Science Teachers' Association of Victoria, Gippsland Branch, asking for details of future Club meetings for publication in their pages. Members of the Association would be very welcome as visitors to Club meetings and excursions or as full members of the Club. They are of course already represented by members who have contributed a great deal to the Club. It was decided to send the Editor a copy of the Club Newsletter each month.

Preliminary arrangements were made for the week-end excursion to Wilson's Promontory, which will now be finalised with the leader, Mr. Ross Garnet. Members attending will be advised of these in good time before the excursion.

The Club Programme:

A few changes in the Meeting programme have had to be made and members are requested to check this Newsletter for changes as final arrangements can be made. At the next general Meeting on Wednesday August 28th. Miss Jean Galbraith will give an illustrated talk on the subject 'Wildflowers of Western Australia', in place of that advertised to have been by Mr. Jack Hyett. Miss Galbraith's talk, arising out of her most recent trip to the West, is one that members have been waiting for.

Car Stickers: The Committee is 'hastening slowly' in this matter, and a local printer of stickers, 'Diamond Screen Printing', is to be approached for sample stickers and prices.

The next Meeting of the Executive is to be held at the home of Mr. Ted McElroy on September 3rd.

--- S.B. ---

FERNS by Mrs. El Lyndon. Notes of a talk to the Club on Wednesday July 28th.:

In all of Victoria and Tasmania there is practically no area where ferns of one sort or another cannot be found. The nature-lover who wishes to acquire some knowledge of our native plants to make his outings to the bush more interesting will find the ferns probably the easiest group to commence with. Some of our species are distributed throughout the world, and some are limited to very small and local areas. Some are sufficiently rare to make the finding of them a thrill indeed.

The Pteridophyta (from the Greek Pteron, a wing; phyta, a plant), or Fern flora, includes all spore producing plants that have woody tissue. The underground root or runner is usually called a rhizome, and from this arises the stipes or stalks of the fronds. In reading the descriptions in your F.N.C.V. Fern books it is necessary to make yourselves familiar with the technical terms used, and in some field books a glossary of these terms is included. 'Wildflowers of Victoria' is one such that comes to mind.

In the true fern groups the fronds uncurl crozier-fashion. Some have fronds that are simple and strap-like, like the Finger-fern and the Strap-fern. The creeping Kangaroo-fern produces the strap fronds as well as much divided and lobed examples. It is one of our commonest species, ranging from the Alpine regions down to granite rocks washed by the tides of the sea, and extends north to the rain forests of Queensland.

The axis or midrib of a frond is known as a rachis (it rhymes with matches), and the foliage units or leaflets clothing the rachis are called pinnae. These may be divided in their turn into secondary pinnae and so on. Thus, according to how it is subdivided a fern may be said to be pinnate, bipinnate or tripinnate. The lowest leaflets on the frond which in most cases are the shortest and smallest are called pinnules. When the bases of these are confluent or running together the arrangement is called pinnatifid. This sounds very complicated but a little study and practice with the first clump of ferns you come across will help you to simplify matters to your satisfaction.

Ferns, being flowerless plants, do not set seed. They spread by means of spores so tiny that they are distributed by wind action. To our eyes they are merely so much brown dust. These spores are enclosed in spore-cases and a group of spore-cases are known as sori. Often these sori, which look like so many dots or dashes arranged in different patterns on the backs of the fronds, are protected by a small scale or lip, called the indusium. Spores that are windblown for long distances may germinate anywhere they find the right combination of growing conditions. Thus we find ferns growing in mine shafts and other man-made excavations in districts where beforehand the species had not occurred naturally. An example that comes to mind is the rare Lacy Wedge-fern. It has been recorded from the granitic sides of a water race that once served the tin mine at Toora.

Positive identification of the ferns depends mainly on the arrangement of the spore clusters. I find the enlarged drawings of these as given in the Fern book a great help. A small pocket microscope is necessary to note the finer points here. The pattern of the various groups of sori on the different species of fern is truly fascinating. There are the half-moon shaped ones on the common Maiden-hair which sometimes trouble the owners of indoor plant collections who think that their ferns have developed some sort of measles! The massed brown sori on the Kinf Ferns; the fluffy borders on the Rock and Sickle Ferns; the long brown bootlaces on the fertile fronds of Strap-fern; and the dashes arranged in fan-shape on the Necklace-fern etc..

Some fronds produce their spores on the backs of normal fronds, but others use special spore-bearing fronds somewhat different in shape to the barren fronds. The genus Blechnum, the Water-ferns, are the ones with the beautifully shaped 'fishbones'. Every gully or damp depression has a few of this family. Look at the next ones you see. In open bush you will often find the Gristle-fern with patches of almost golden foliage. In winter it usually lacks any spore-cases or sori. This is the one member of its family that does not produce special fertile fishbones. The sori are in long black lines on the backs of the pinnae of normal fronds. But in the absence of these remember to examine the lowest leaflets, the pinnules, on each frond. In the Gristle-fern these are as long or even longer than the upper pinnae and are directly opposite each other, pointing down and out like a pair of rabbit ears. In others of the fishbone type, the Lance Water-fern and the Fishbone Water-fern, for instance, the pinnae are confluent and zigzag all the way down the rachis. They look alike at a glance, but it is by their special fronds that you can tell them apart.

The Hard Water-fern is a coarse and stiff variety that sometimes grows to five or more feet in favourable conditions. The pinnae do not run together in a zigzag but are each joined to the midrib by a tiny stem. Others of the family include the Soft Water-fern of the riversides; the Ray Water-fern, and the dainty Alpine Water-fern. We saw it on the Baw Baw trip.

When beginning to study the ferns it might be as well to go for the big simple ones first. We have two common Tree-ferns. The Rough Tree-fern is the one that grows out on exposed hillsides where it has survived clearing operations and the wind and weather. Feel the foliage. It is soft to touch, and you immediately think this must be the Soft Tree-Fern.

However, it is well to remember that its distinguishing feature is not the foliage but the rough and raspy frond butts where they join the trunk. The spores are situated in lines of tiny dots along the ribs of the pinnae, well back from the straight edges. In the Soft Tree-fern however, the foliage is rather harsh to touch, the pinnae much serrated with the spore clusters on the margins, partly protected by the inrolled edges. It favours the sheltered creek banks under the timber and the long fronds are smooth right to the butts. Another good pointer here - the trunks of the Soft Tree-ferns usually support colonies of mosses and filmy-ferns while that of the Rough Tree-fern is invariably quite bare and dry.

The Mother Shield-fern is plentiful in local bushland. Know it by its harsh tufted foliage and look for the tiny bulbils or miniature ferns growing out from the tips of the fronds. The Mother Spleenwort has this characteristic too. When the fronds age and sink into the mould of the earth below the young plants speedily send forth roots and establish new plants.

The Rasp-ferns and Sickle-fern are roughly 'Fishbone' in shape, hardy and common. The first is a very dark green to brown with rough serrated edges to the pinnae and spores in dashes along the ribs. The Sickle-fern often survives in open paddocks, especially on basalt country. But it likes the gullies too, growing softer and more gracefully there. The sori are arranged in marginal lines. One feature of this fern is the many bare stipes that stick up from the clump, quite devoid of leaflets.

The Necklace-fern is widespread under logs on the roadsides as well as in the scrub. The fan-shaped pinnae are threaded along the flexible midribs that continue in a bare length of green thread, often rooting again where it touches the earth. By these bare tips you will know it from the somewhat similar but stiffer Screw-fern, another widespread species. Its short triangular pinnae are soriferous on the outer edges, in contrast to the long dashes on the Necklace-fern.

It is better not to attempt to distinguish too many kinds at once. You will find your interest growing as you begin to know a few common ones at sight and can point them out to other people. In a Club with a large membership such as this certain members tend to specialise, that is, to lean to one branch of natural history more than the others, while retaining a general interest and developing a quick eye for all the interesting things seen on a ramble through the bush. It is very necessary to develop the art of seeing. So much, if not pointed out to the average person, is completely passed by, and much of the enjoyment of the outing missed.

Many plants are protected by law in Victoria and all the ferns except the common Bracken, which seems to be world-wide in distribution. A permit may be obtained, free of charge, by applying to the Forests Commission, permitting the taking, for certain reasons, of specimens and plants from Crown land controlled by the Commission. It is also legal to take material from private property, with, of course, the permission of the owner. It is illegal to remove material from the roadsides, which are controlled by the Country Roads Board, which likes to see its roadsides clothed with native flowers and trees for the enjoyment of the people who use the roads. Unfortunately not all local authorities and landowners share the same view.

I feel that any serious student of the fern flora needs the opportunity to study at leisure the material seen during the day, and this makes it necessary to bring home certain samples of the fern fronds etc.. They can be mounted in a little field book and held in place with sticky tape. Be sure to note details of locality and name and date. The Committee of this Club very rightly frowns on the collecting of bunches of ferns, flowers, the uprooting of seedlings and so forth when out on excursions. This behaviour sets a bad example to other members and visitors, and brings the Club into disrepute, whether the collectors be permit holders or not. Even if in possession of a permit, it is better for necessary collecting to be done on private study excursions. Photographers of course, have an advantage, they can record all the details they need in a perfectly legal manner!

--- E. Lyndon ---

NOSTALGIC CONTRASTS by Mrs. M. Hague, Cowarr:

To me it never seems Winter in Australia because the trees of the bush are evergreen. In England most of the trees lose their leaves, and by November most are naked. This does not mean that they are ugly for there is still beauty in the colours of the bark - the Beech has smooth silvery grey bark, and the Silver Birch is also very pretty in Winter with the shining silver and black markings.

On a frosty or snowy day, as the sun sets in crimson and gold clouds, the tree branches make a pattern like black lace against the sky. Our farm was situated in the centre of very pretty woodlands and were a part of Lord Stanley's Alderley Estate before it was sold in 1939. The woods (or bush) were on undulating country, and streams meandered through into an ornamental lake in lower woodland called the 'troutpond'. Wildflowers abounded, as did birdlife, and I remember the gayly coloured cock pheasant, flying into the bracken giving his startled cry. If we walked along the track to our farm at night time we were greeted by the owl who had just wakened for his night hunting. Always just before Christmas Robin would appear in front of the window showing his new winter crimson waistcoat, putting his head quaintly on one side and calling. On most days he would have a food of crumbs.

Spring was glorious with all the new life of trees and flowers, but autumn could even equal that beauty. Alderley oaks were famous, age-old and as hard as iron - for centuries they have been used in the building of farmhouses, barns etc.. It takes one hundred years to mature an oak. My favourite tree however was the mighty Beech, which was huge. The leaf buds of this tree unfolded into a delicate green in Spring, all through Summer the foliage provided shade, and then in the Autumn it changed to a mass of bronze.

Just before Christmas it was a delight to wander in High Lees Woods, there many holly and Rowan trees growing there, and at this season the trees seemed to glow, as not only are their berries scarlet, but the leaves also are glossy and deep green.

The neat little church with its octagonal tower peeping from the trees, was furnished entirely from trees grown in the park land adjoining. The reading desk was in the design of an eagle with outstretched wings; the altar and rails were beautifully carved as also was the pulpit and walls. It was unforgettable - the scene at Christmas - to see the gleaming wood decorated with the evergreen holly, laurel and pine, with clusters of red berries. Every old festival is associated with nature, that is why holly, ivy, mistletoe and other evergreens are symbolic of Christmas.

--- M. Hague ---

EXCURSION TO FOSTER'S GULLY by Mr. E. Homann:

With the usual luck of our Club with the weafer eleven carloads assembled at Yinnar on the beautiful sunny day of Saturday July 31st. Travelling south, the party was soon on Whitelaws Road where beautiful clumps of red and pink Heath (*Epacris impressa*) were seen on both sides of the road. A stop was made beyond the rubbish tip in Messmate (*Eucalyptus obliqua*) country. The party soon spread out along the roadside and discoveries were made of Orchid leaves and some early buds of common kinds, while two Acacias (*A. verniciflua* and *A. stricta*) showed advanced buds. The quaint Screw-fern was fairly plentiful as was the Rain-bow-fern.

Travelling on through undulating country a stop was next made at the Mill Road junction. Along this road were fair specimens of Grey Gum and in a gully beside the road appeared large patches of Gristle-fern. Moving on through beautiful country the road running down Middle Creek was soon reached. The view down this valley was delightful, the flats being dotted with fine specimens of Blackwood (*Acacia melanoxylon*). Reaching the Martin Walker Park a stop was made for lunch. In this park still stand two fine specimens of the Rough Tree-fern, and close to the bridge stood a veteran Manna Gum. Unfortunately many of the trees in the reserve are heavily infested with mistletoe.

The next stop was on a section of the old road opposite the track down to Foster's Gully. Close by the parked cars Mrs. Lyndon drew our attention to a magnificent Gippsland Box (*Eucalyptus bostistoana*), towering sturdily above the surrounding growth. The delightful walk down the track to the gully took us through a dense growth of Acacias, Cassinias (dog-wood), Daisy bushes, and other common shrubs of gully country.

Reaching the gully we discovered a koala high in a tree fork - he was only mildly interested in our doings. Along the track beside the gully were fine specimens of Sweet Pifto-sporum (*O. undulatum*), two of which seemed to be overloaded with pale golden fruits. Mr. Sterkenberg demonstrated how it was possible to grasp a nettle but their stinging fingers reminded some of our young members for a long time afterwards that it was not as easy as it looked.

Specimens of Turnip Wood (*Rapanea Howittiana*) were new to a number of us. Many plants of Sarcochilus - the Butterfly ORCHID -- were seen and should show wonderful blooms later in the year.

Mrs. Lyndon led the active members down into the gully and then along it in both directions where ferns were in great profusion and variety.

ON returning to the main road, Mrs. Kinniburgh thanked Mrs. Lyndon on behalf of members for a delightful day.

--- E. Homann ---

(Notes on the ferns described by Mrs. Lyndon will be included in the Newsletter for September. (Ed) .)

FURTHER NOTES ON BIRD-BANDING by Mr. Frank Jones:

The time has come, I think, when more purpose should be given to our bird-banding activities by undertaking something in the way of a special study of the habits and movements of certain birds, and from previous observations some indication of a worth-while line of study has been gained. During banding operations some further light has been shed on the movements of several kinds of Honey-eaters, and with the long term objective of helping to establish which types of country are essential for the conservation of these birds, we may play some part in the protection of suitable places wherever possible, and also if we can get an accurate idea of the bird population of our district we will be in the position to assess the effects of the contentious 'hazard reduction' burning being carried out by the Victorian Forests Commission. Investigation of this matter is already being carried out by the Victorian Ornithological Research Group, in conjunction with the Forests Commission, who are making a bird count and doing some mist-netting both before and after burning.

Meanwhile, some good work can be done in our own area on bird numbers and movements. The Honey-eaters, being nomadic, are particularly suited to this kind of study, and a total of 399 Honey-eaters of nine different kinds have been banded in the Cowarr, Gould and Boola areas and at least a start has been made with these birds. They have been particularly numerous in the Cowarr district when the Red Box has been flowering for the past ten weeks, but as they were very scarce in the same area by the beginning of October last year, it seems that they disperse to their breeding places after the Red Box has finished.

The next step is to band these birds in places where they are known to meet, although it will probably be necessary to continue this program for several years before we can really hope to retrap birds away from the place where they were banded. The project entails the banding of birds at a number of places over a wide area of hill country during the next few months, and as this is the period when most birds will be mating, it is hoped we will be able to combine this with a nest recording project which is organised by the Royal Australasian Ornithological Union. For this purpose I have obtained a supply of Nest Record Cards upon which the details of all nests found are to be recorded.

It remains to be seen whether enough birds will be caught in their nesting territories to make it worthwhile, but one advantage will be the opportunities of banding a few nestlings. Experience has shown that, provided it is done at the right time, the handling and banding of young birds, of most kinds at least, causes no harm. In fact, since the growth in popularity of mist-netting, the authorities in Britain have been urging bird-banders to return to the practice of banding nestlings because a record when the age of the bird is known is more valuable.

--- Frank Jones ---

UNDERGROUND CAVES by Mrs. Florence Kinniburgh:

From the big progressive city of Kochi along a very winding and dusty road, the Ryugado Stalactite Caves are reached after about 15 miles, and the journey is well worth the effort. The cave meanders inward for about one mile, but unlike so many of our Australian caves, the air is quite warm, due, no doubt, to its more shallow depth.

The widest chamber is about 1900 square feet in area, and in one well-like dome the height is nearly 100 feet - everywhere evidence of the constant struggle between water and rock! The rock pillars and spikes are very well formed, making fine geological specimens, and streamlets are formed by water dripping from the ceiling.

Not as many icy stalactites exist in the Ryugado Caves as in Australian counterparts, nor are the formations as colourful. Near the Grotto, which is of rather recent discovery, archaeologists have unearthed a number of clay dishes which belonged to prehistoric peoples who presumably inhabited the caves. The Ryugado Caves are protected by the Japanese Government as a National treasure, and also a place of historical importance.

--- F.M.K. ---

(There will be more of Mrs. Kinniburgh's interesting observations of nature in Japan in future issues. (Ed)).

COMBINED EXCURSION TO LOCH SPORT:

The Secretary of the Bairnsdale Field Naturalists' Club has issued an invitation to members of this and the Sale Club to join an excursion to Loch Sport on Sunday next the 22nd. August.

The purpose is to study the coastal flora of the area, which is intended to be recommended as a flora reserve.

The meeting place is at the old Post Office in Sale, and the time of meeting 10 a.m. This should be an interesting day in good company, and it is hoped that a number of members can attend.

(Ed).

LATROBE VALLEY FIELD NATURALISTS' CLUB.

Club Aims:

To promote an interest in native plants, birds and animals, geology and marine life, and to assist in the establishment of nature reserves. To protect, so that we and others may enjoy.

.....

General Meetings:

Are held on the fourth Wednesday of each month at the Morwell High School, starting at 7.30 p.m.. A talk, usually by a specialist in some branch of natural history and illustrated by slides or movies and/or specimens, follows the short business part of the Meeting.

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Excursions or Field Days:

Regular field days are conducted on the Saturday following the General Meeting. A programme of meetings and excursions arranged up to February 1966 may be obtained from the Secretary.

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Annual Subscriptions:

10/- for a single person, 1/- for juniors, and 15/- for a family. Subscriptions may be paid to the Secretary or the Treasurer, Mr. E. McElroy.

.....

If you desire further information regarding the activities of the Club, you are invited to get in touch with any of the following:-

<u>Moe:</u>	Mr. E.H. Homann, 84 Hennessey Street.
<u>Morwell:</u>	Mr. J.M. Peterson, 14 Barry Street.
<u>Traralgon:</u>	Mr. K.G. Eldridge, 39 Lafayette Street.
<u>Yallourn:</u>	Mr. G.T. Scanlan, c/o L.V.C. Hospital.

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Contributions to this Newsletter:

Contributions relevant to the interests of members and the aims of the Club are invited and should be addressed to the Editor, G.T. Scanlan, c/o L.V.C. Hospital, or handed to the Secretary.

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LATROBE VALLEY FIELD NATURALISTS' CLUB.

MONTHLY NEWSLETTER.

'PROTECT

AND

ENJOY'

President:

Mr. E. Homann,
84 Hennessey Street,
MOE.

Secretary:

Mr. S. Belgraver,
179 Lloyd Street,
MOE.

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EXCURSION NOTES by the Excursion Secretary, Miss N. Rossiter:

On Saturday 25th, September Miss Joan Galbraith will lead a botanical excursion along the Cowarr - Boola Boola Road.

Members are asked to assemble at Toongabbie at 10 a.m., and transport arrangements should be made not later than Thursday 23rd, September with any of the following:-

Traralgon.	Mr. K. Eldridge.	Trar.	72503.
Morwell.	Mr. J. Peterson.	Mor.	42129.
Yallourn.	Miss N.T. Rossiter.	Yallourn.	52392.
Moe.	Mr. E. Homann.	Moe	295. 8.30 a.m. - 4.30 p.m.

WILSON'S PROMONTORY WEEKEND October 23rd. - 24th.

Lodges booked for the Club at Tidal River on Saturday night October 23rd. may be occupied by 1 p.m. on Saturday until 10 a.m. on Sunday. Members are reminded to bring their own linen and an extra blanket if the weather is cold. (Two blankets are provided for each bed).

There is a cafe at Tidal River where meals can be obtained for those who prefer not to cook their own. Provisions, soft drinks, ice-cream, sweets etc. are available at the store.

All members please note! The area is a National Park, and no specimens of any kind may be picked or removed from the Park.

--- N.T.R. ---

NOTE BY THE SECRETARY Mr. S. Belgraver:

Due to the school holidays it was not possible to conduct an Executive Meeting because only four members could attend. These members made a few arrangements regarding the Newsletter, the next Meeting night, and the excursion. (It should be said that the few who attended were grateful to Mrs. McElroy for a delightful supper).

At the General Meeting, which will be held on Wednesday 22nd, September, Mr. Lightbody will address members on the subject 'Birds'.

A letter from the Morwell branch of the Good Neighbour Council inviting Club participation in their get-together on February 16th 1966 will be discussed at the General Meeting.

The place and date of the next Meeting of the Executive will be announced at the General Meeting.

--- S.B. ---

GEOLOGY EXCURSION.- BAIRNSDALE FIELD NATURALISTS' CLUB:

The Bairnsdale Club has invited members of this Club to join in a Geological excursion to the upper Avon River area on Saturday 18th. September. The leader is to be Mr. John Neilson of the Victorian Department of Mines, and it is intended to assemble in the vicinity of the Police Station, Stratford, at 9.45 a.m.... This should be a most interesting day.

A BOTANICAL JOURNEY TO AND IN WESTERN AUSTRALIA:

A Report of a talk to members of the Club on 25th. August 1965 by Miss Jean Galbraith on her trip to Western Australia from notes supplied by her to Miss Betty Kemp:

With the help of a map and colour slides, Miss Galbraith gave a very interesting talk on her trip to Western Australia from July through September in 1964.

Most of Western Australia is not swept by moisture laden winds but by South-east trade winds blowing across the land. They come over miles and miles of land with a rainfall of 11" or less, and they certainly do not bring moisture. They suck up any moisture that is there, and there are no high mountains to make them drop it again.

Most Western Australian mountains are measured in hundreds, not thousands of feet, and much of inland W.A. is a limestone plateau of which the so-called Darling Range is merely the western scarp. It is an old land - one of the oldest in the world - swept by wind but rarely by rain. As already stated, its average rainfall is under 11". It is no wonder then, that most of the vegetation is suited to a dry climate. Any plants that cannot stand drought and drying winds must have died long ago on the plateau of Yilgarnia. But Yilgarnia is not all of Western Australia. There are two very different areas, one north of it, and one south-west. The north is the tropical area to which monsoons, coming heavy with moisture across the sea, bring summer rain. To the south is the low-lying temperate south-west province, with a climate affected by the fringe of the same weather that brings the rain to Tasmania.

Miss Galbraith did not deal with the tropical north but mentioned that, in the warm climate of heavy monsoonal rains, many of the plants are luxuriant broad-leaved species, often deciduous, and related to the Malaysian rather than southern plants. That is what one would expect in that climate.

We might call this tropical vegetation the top layer of the W.A. sandwich. The bottom layer of the sandwich is the temperate south-west with a good, mainly winter rainfall. It is a wonderful place of good soil and rainfall and relatively mild climate. 600 plant species grow there - more than in the same area anywhere else in the world - though Cape Province of South Africa comes fairly close to it.

Between the top and bottom layers of the sandwich is the thick

middle layer - we might call it the filling - very, very thick filling - which is Yigarnia, the old limestone plateau of low rainfall and drying winds, salt pans and desert vegetation - and the dry country north of it.

So there are our three layers - or three provinces:

Tropical north with tropical plants, summer rain, winter mild and dry;

Middle desert with low irregular rainfall and a flowering governed by rainfall, not seasons;

Temperate south-west, with dry summers and wet winters.

It is this south-west province, from Shark Bay around the coast to Esperance, that was the scene of Miss Galbraith's holiday, and where most of the pictures were taken (by Mr. Hawkins). One might think Shark Bay rather far north to be called the south-west province. It is 500 miles north of Perth, but if we look at the map we will see that it is still a long way south of the Equator and the area of monsoonal rains. The sandwich is a rather lopsided one, but it will serve as a reminder of the different climates. The reason for the lopsidedness is the influence of the sea which moderates the temperature and increases the winter rainfall south of the monsoon area. Because of this, the so-called south-west Province extends in a narrow strip quite a long way up the coast.

East of this gigantic sandwich is the arid limestone of the Nullabor Plain which effectively isolates the West Australian flora from ours in the east.

Any such broad description as given has necessarily to be oversimplified. There is no clear-cut distinction between the south-west and the desert. One gradually changes into the other, but broadly the arid land with its low and irregular rainfall is known as the Mulga Country. It is dominated by two things - the Mulga and related wattles which flower according to the rain, not the season, and a wonderful carpet of annual flowers which springs up after the rain, and which can grow and flower and seed in the short season before the ground becomes dry again.

The south-west Province, like the whole of Western Australia, seems to fall broadly into three sections. The north includes the fringe of the Mulga country, and has a winter rainfall of under 9" and a hot dry summer. The central section about Geraldton has a rainfall of approximately 15" which increases gradually toward the extreme south-west from Augusta to Albany where the rainfall is 50", mainly in winter. Eastward towards Esperance (25") it decreases. We are reaching desert again.

Miss Galbraith's most northerly travels took her into the Mulga country near Shark Bay. Fortunately it was a good season - there had been 18" of rain, almost 10" more than the average. All the seeds that lie dormant in the ground, preserving the plants through drought seasons which may last for months or years, had sprung up and flowered. Later they would drop a fresh supply of seed which would lie in the red soil until the next good rain. The result, in mid-August, was seen in the pictures, both of the annuals and the brilliant and varied shrubs which are all in different ways adapted to stand drought.

In all this country it is dry for more than half of the year, and inland where it verges on the desert it is also hot and windy. Yet there you will see some of the most colourful and varied wildflowers in the world, all adapted in some way to life in a dry climate.

The bulbs, like the annuals, are safe underground during the dry season, but plants that do not die down must reduce loss of water by reducing evaporation. In damp climates plants give back to the air a great deal of the water taken in by their roots. It is lost through the breathing-pores of the leaves.

The many ways in which the western plants guard against this adds to their exciting variety. Many are leafless or almost so. Many have minute leaves, or woolly, mealy or leathery leaves with few pores (stomata), or fleshy leaves which store moisture when they can get it. Bushes and trees (where there are any trees) are densely branched, often with leaves crowded together into a layer on top of comparatively bare branches. There is almost no horizontal foliage. Leaves grow vertically, presenting only their edges to sun and wind. We all know the characteristic hanging gum leaves which minimise evaporation by letting only their edges face the sun. In the hotter parts of Western Australia they go further, and the eucalypts are all more or less funnel shaped, with flat tops where the leaves hang edgewise and very close together on only one plane, while other trees take the same shape with leaves either hanging or erect, never spreading. This gives maximum protection from wind.

Miss Galbraith and her party travelled south through the Mulga country, until the Mallee eucalypts indicated higher rainfall (compared with $8\frac{1}{2}$ "). The Geraldton country is about the beginning of the 15" rainfall, so the beginning of the middle section of south-west Province where trees begin to replace Mallee. As usual the transition is gradual. Along the streams of the Murchison-Geraldton area there are trees, closely related to our River Red Gums, but it is still mainly a country of Mallee Eucalypts which are equipped to stand drought and wind, and usually a nitrogen deficiency.

Then followed some wonderful slides. In the far north we saw sheets of Everlastings; pink *Schoenia* and yellow *Cephalopterum*; purple Daisies (*Brachycome*); and greeny-yellow *Mulla Mulla* (*Ptilotus*). Further south, towards Geraldton between Yuringa and the Murchison River, were seen the bright scarlet flowers of *Hakea bucculenta* and *Grevillea dielsii*; the vivid blue of the *Dampiera linearis*; and the pink Geraldton Wax (*Chamaelarium*). Next came the brilliant orange flowers of the lovely W.A. Christmas tree (*Nuytsia*), and of *Grevillea prionotes*. Towards Mullewa, *Leschenaultia macrantha* lay wreath-like on the ground, shading from cream to deep rosy-pink. Also seen were *Grevillea petrophiloides* with blue-stained pink flowers; *Hakea multilincata* with deep rose-pink spikes about 6" long and, further south, the big red flowers (3" across) of *Eucalyptus pyriformis*.

About 50 miles north of Perth there were the pink belled *Tetradlea* and the *Hibbertia lasiopus* (Guinea Flower), with yellow flowers lying on their leaves flat on the ground. At Perth the dwarf *Eucalyptus macrocarpa* had lovely pink flowers about 4" across, and also seen were the red and green Kangaroo Paw (*Anigozanthos manglesii*); a rare pure yellow Cat's Paw, and the bushy red and yellow *A. humilis*.

Around Augusta at Cape Leeuwin in the extreme south-west were found red *Chorazena*; the bright yellow wild Iris (*Aanthina patersonia*); and bright pink *Pinelea Rosea*. At Albany were seen *Anthrocercis viscosa* (related to the Tobacco plant), with large white scented flowers; and the bright red flowered *Banksia coccinea*.

Finally, Esperance with its lower rainfall produced more dwarf-like flora. Here were located the yellow *Goodenia affinis*; mat-like *Connostylis*; and several species of *Kunzea* of which *K. jucunda* has bright pink flowers.

Although we had heard of Western Australia's wonderful wildflowers, their beauty and variety were brought home to us more vividly by Miss Galbraith's illustrated talk, and whetted our appetites for more. On behalf of those present, Mr. Bob Auchterlonie thanked Miss Galbraith for a most interesting and colourful talk on what must have been a very worthwhile and satisfying holiday.

--- B. Kemp. ---

EXCURSION SATURDAY 29TH. AUGUST 1965: Reported by Mrs. L. Padfield.

On a delightfully sunny morning a convoy of ten cars assembled at Moe, and then journeyed on to the Edward Hunter Pool area.

Mr. Belgraver, Secretary, had contacted photographer Mr. A. van Houts, who took pictures of members in a suitably 'field nats' setting.

The leader for the day, Mr. Bob Auchterlonie, first related some of the history of the area as far as he was aware. The pool was what remained of a former dam constructed by the Victorian Railways to provide water for the ever thirsty steam locomotives. Later, when steam was replaced by diesel and diesel-electric, the pool was used as a swimming/recreation area, but several drowning fatalities induced the authorities to release most of the water, and so remove the danger of similar happenings.

Mr. Auchterlonie then led the party on an inspection of a part of the area, which in total covers about 80 acres. It is understood that a reserve is to be created in an attempt to preserve the flora and fauna which it contains, and to provide a little 'green belt' within close proximity to the City of Moe. Some of the native plants noted were *Banksia spinosa* (Hill Banksia); *Hakea ulicina* (Furze Hakea); *Epacris impressa* (Common Heath); tangled masses of *Baurea rubioides* (Wiry baurea); *Eucalyptus obliqua* (Messmate); *E. Radiata* (Common Peppermint); and *Acacias* in full bloom. *Pultenia gunnii* (Golden bush Pea) were seen, but were not yet in flower.

The list of plants which had been identified in the area was read to members, and the foregoing is therefore to be taken as a few of the more prolific of them.

After lunch near the Pool the party journeyed along the Coalville Road to McDonald's Track, which was followed as far as the Thorpdale Road. A stop was made at Bird's Gully, which has been reserved, a little plot of green now under the control of the Shire of Morwell and our Club. It

covers a mere twelve acres, but is an interesting patch of native plants nonetheless. Some of the species noted among the many ferns were Gris-tle Fern, Fishbone Fern, and a prolific growth of the Common dainty Maiden Hair Fern. We saw *Olearia linata* (Snow Daisy-bush); Austral Bears Ear, a yellow flower which looks very much like Cape Weed, but is certainly a native. The Giant Rush was seen along the quietly running creek, and Mr. Auchterlonie explained some of the uses to which it can be put, which appeared to interest the younger members of the party considerably.

From Bird's Gully we travelled on to the Hazelwood Arboretum, and the growth of the many trees planted here was a matter of surprise to many who had either not seen the area before, or not for some time. A great deal of work had been carried out by the S.E.C. in removing trees (Pines) from along the roadway fence; fences had been erected to protect the growing trees, and other work which will assist in making this place a local and a tourist attraction as time goes on.

Mr. Auchterlonie, who has been one of the active members at the Arboretum, explained how it had come into being, and referred to the work which had been done by Miss Rossiter and others. This project has undoubtedly been worthwhile, and the growth of the trees in the future will be watched with great interest.

Here Mr. Charlie Lester thanked Mr. Auchterlonie on behalf of members for his leadership of the excursion, which had been carried out with his usual thoroughness, patience and good humour.

--- L.P. ---

HAVE YOU EVER BEEN DIDLED BY A DUCK? A Question Posed by Brian KANE.

This is one way to explain how a mother duck protects its young or eggs. At the approach of danger the female duck will feign injury to attract the attention of the hunter. While driving along the Switchback Road behind the wall of the Hazelwood Cooling Pond, watching for birdlife, we came across a family of eleven Mountain Duck (*Casarca tadornoides*) - proud parents with nine chicks - waddling along in the paddock adjoining the road. Grabbing my camera, I hopped out of the car, and followed them across the paddock hoping to get a snapshot. When the parents realised that I was pursuing them, their honking changed to a cry of warning, and immediately the chicks flattened themselves on the ground. The male bird took off and flew low over our heads as if to direct our attention to himself. When this failed the mother fluttered into the air for a few feet - fell to the ground - flapped along trying to fly, and this pathetic maneuver lasted for several hundred yards, leaving the onlookers in the car breathless at her antics.

I took this opportunity to temporarily capture a chick for photographing. It was still down-covered and blotched with browns, greys and creams. After photographing, he was returned to his brothers and sisters who, by this time, had hidden themselves in the long matted grass of the dam wall. All the while the parents flew overhead calling anxiously, but as we left the scene we saw them land near their chicks.

--- B.K. ---

A NOTE FROM MR. E.G. TRIPLETT who has now removed from the Valley:

'My main regret at leaving the district is in leaving the 'Nats', but I also regret not having been able to contribute anything while a member, although, being a lover of trees and birds in particular for many years, one misses much of the enjoyment if ones feet are not set definitely on the 'F.N.' road, and early.

Thanks to those enthusiasts who patiently pointed things out to members on the excursions. Perhaps Field Nats' could give a little more attention to instructing the young, as it requires a lifetime of observation and study to become expert to guide others.

Thanks for you many labours, Clubwise.

Yours faithfully,

E.G. Triplett.'

NOTE BY THE EDITOR:

It is evident that Mr. Triplett voices the feeling of other members, that real enjoyment of nature can come only with a knowledge of the things that we see, whether on Club excursions, or during our own private rambles; and the feeling of regret and envy that assails many of us in the presence of the specialists.

His suggestion regarding instruction of the young might be a matter that could be considered by the Club Executive. However, the embryo Field Naturalist can learn a great deal and, in learning, perhaps teach the younger members of the family by studying suitable books, preferably, initially, of an elementary, fundamental nature, and relate the study to observation in the field.

A work that can be confidently recommended (for those who are willing to admit a lack of knowledge and a desire to learn) is "Australian Nature Studies" by Dr. J.A. Leach, revised by E. Byrne B.Sc., and published by McMillan. It is comprehensive and provides an excellent background for more specialised study.

The Editor's advice is to get a copy (preferably honestly), put the T.V. out in the garage, and start a careful study of the book from page 1 finishing, at some time in the future, at page 496. It will be immensely rewarding.

THE EDITOR WONDERS!

During the lunch interlude at the Edward Hunter Pool the Secretary handed a copy of the last Newsletter to one of the members who was heard to say, "What, another one! Why, I haven't read the last one yet - but at least I've filed it."

And so the Editor wonders how many of the members really read and appreciate the Newsletter. Are there others who 'at least filed it'?

These modest duplicated sheets which are prepared and issued monthly represent the expenditure of effort and time by a number of busy people, some of whom are, of course, specialists in a particular field, and whose articles have a great educational value. Neither the contributors nor the Editor look for commendation for their efforts, but would like to feel that the Newsletter was serving a useful purpose.

Primarily, it is for the purpose of keeping members informed of Club activities and plans for the future. In addition, it was hoped that members would profit from the contributions of the specialist members, and also enjoy the related experiences of other enthusiastic 'Field Nats'.

Perhaps, even though it might not be read as avidly as the 'T.V. Times', or the 'King's Cross Whisper', it is appreciated by the majority of members, and there is no need to wonder!

--- Ed. ---

A FOSSIL NOTE FROM JAPAN by Mrs. Florence Kinniburgh:

AMMONITES:

Ammonites are commonly called the 'Serpent Stone' (or Cornus Ammonis), and are said to resemble the ram's horn ornaments on the front of the Temple of Jupiter Ammon, an ancient Egyptian God.

Belonging to marine life in the JURASSIC Period, (which derived its name from the Jura Mountains of Switzerland, and is applied to the beds laid down during the period between the Triassic and the Cretaceous), Ammonites are extinct cephalopod molluscs related to the Nautilus. They are typically fossil shells rolled in a spiral, and divided into a series of chambers in the outermost of which the animal lived, the others being empty but traversed by a syphon (or tube) running the whole length of the shell.

The fossils are found in a strata of limestone and clay, and in an argillaceous iron ore (pure white clay containing alumina). Ammonites became extinct at the close of the Cretaceous.

My specimen came from Noboribetsu in Hokkaido Island, Japan, and it is there known by the name of ONUKI BANDO.

--- F.M.K. ---

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Are held on the fourth Wednesday of each month at the Morwell High School, starting at 7.30 p.m.. A talk, usually by a specialist in some branch of natural history and illustrated by slides or movies and/or specimens, follows the short business part of the Meeting.

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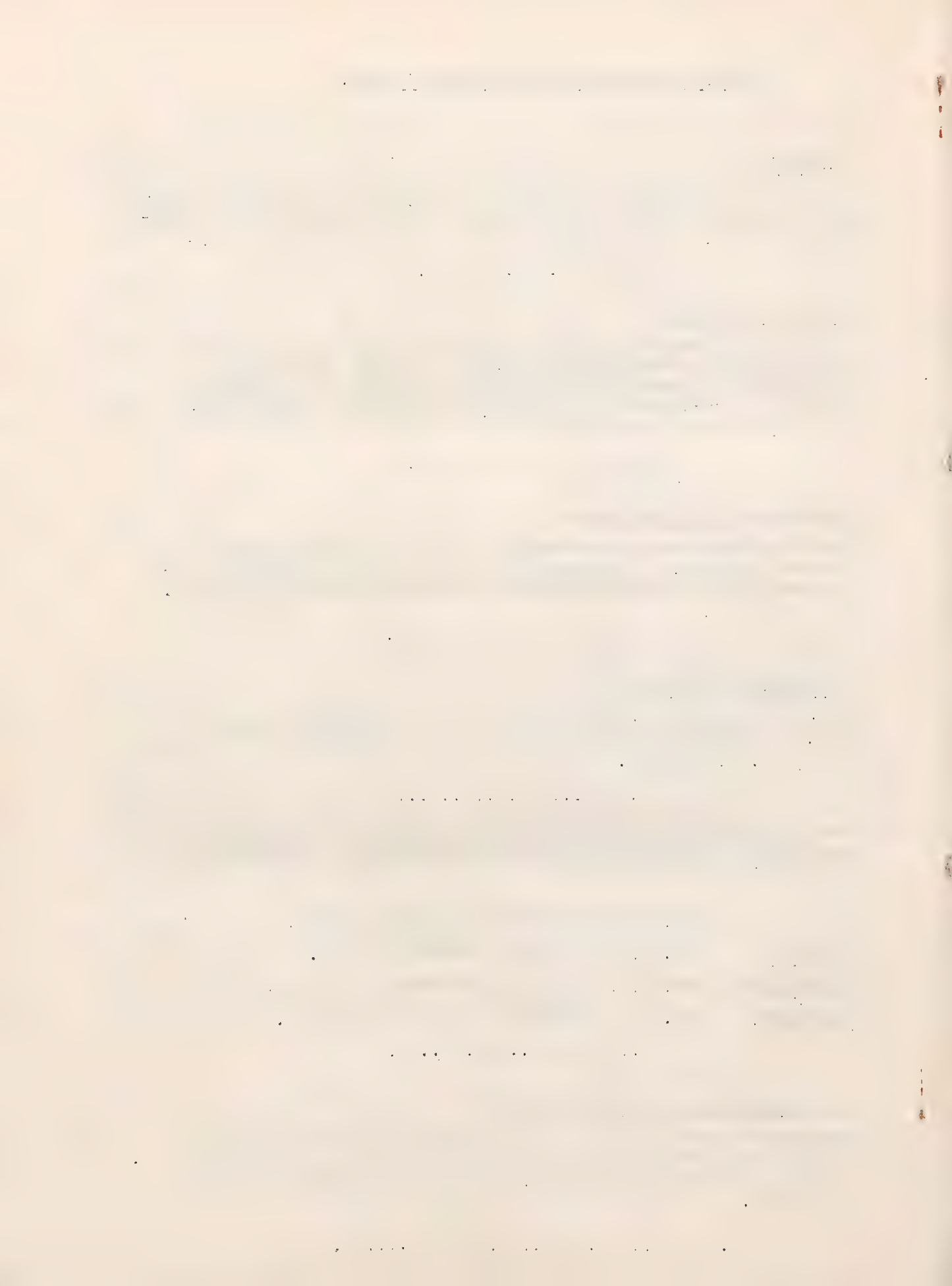
Moe: Mr. E.H. Homann, 84 Hennessey Street.
Morwell: Mr. J.M. Peterson, 14 Barry Street.
Traralgon: Mr. K.G. Eldridge, 39 Lafayette Street.
Yallourn: Mr. G.T. Scanlan, c/o L.V.C. Hospital.

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LATROBE VALLEY FIELD NATURALISTS' CLUB.

MONTHLY NEWSLETTER.

'PROTECT

AND

ENJOY'

President:

Mr. E. Homann,
84 Hennessey Street,
MOE.

Secretary:

Mr. S. Belgraver,
179 Lloyd Street,
MOE.

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Dear Fellow Field Naturalists,

After a long period of anticipation, many members are now ready for the excursion to Wilson's Promontory, and the Excursion Secretary, Miss Nancy Rossiter, has provided the last notes as under.

Mr. Ros. Garnet, who will be the leader at the Wilson Promontory week-end on Saturday October 23rd. to Sunday October 24th. will give his talk on the history of the Promontory at the General Meeting on the following Wednesday October 27th. at the Morwell High School.

The lodges at Tidal River may be occupied at 12 noon on the Saturday. Members are asked to assemble for the afternoon excursion at Wallaby Lodge at 1 p.m.

ANOTHER REMINDER: NO flowers may be picked or plants removed from the Wilson's Promontory National Park.

--- N.T.R. ---

THE EXECUTIVE MEETING 8TH.OCTOBER 1965.

Report by the Secretary Mr. S. Belgraver:

The Committee discussed a report from the Sub-committee regarding the Car Stickers, and approved of a design comprising a grass tree by Mrs. Jacobson, and a sample sticker submitted by Diamond Silk Screen Printers of Newborough, using this design. It was decided to order 100 of the Stickers to be sent to all interested Clubs.

Photoflora 1966: As decided at the last General Meeting, final arrangements were made concerning Photoflora 1966. The screening is to be held on Friday 25th. March 1966 at the Morwell Town Hall, and will be organised by Mr. Jim Peterson.

Junior Chamber of Commerce Trade Fair: It was decided to accept the offer of the Junior Chamber to the Club of space at the forthcoming Trade Fair to be held in Kernot Hall, Yallourn, on Friday 29th. of October and Saturday the 30th., and to arrange an exhibit of wildflowers. The exhibit will be in the hands of Mr. Jernakov.

Change of Meeting Night: The Executive will recommend to members at the next General Meeting that the meeting night be changed to the fourth Friday of the month in place of the present fourth Wednesday.

Publicity: Following reproduction of two pictures in the 'Moe Advocate' taken during the excursion to the Edward Hunter Pool Reserve in Moe, it was decided to write to the Editor of the paper expressing the importance of the area as a nature reserve, and asking the co-operation of the public in its preservation.

Meetings and Excursions during 1966: The Executive invites suggestions for the subject matter of meetings and the venue of excursions for the year 1966.

--- S.B. ---

More Regarding the Exhibit of Wildflowers:

Wildflowers are required for the exhibit at the Trade Fair mentioned by the Secretary, and members who have native plants growing in their gardens, and which will be flowering at that time (the end of October), and may be willing to provide a spray or sprays, are kindly asked to contact Mr. Jernakov, giving the names of the flowers they can give so that he can prepare labels beforehand. The address of Mr. Jernakov is 13 Maryvale Road, Yallurn, or he may be contacted at the Y.M.C.A. 'phone 52391.

Lecture on 'National Parks in U.S.A. and Canada':

Dr. L.H. Smith, Director of the National Parks Authority of Victoria, who is well known to many members as a most interesting and authoritative speaker, will give a lecture on the above subject at the Y.M.C.A., Eastern Road Hostel, Yallourn, on Tuesday 16th. November at 8.p.m.. Mr. Jernakov, the organiser, has stated that all visitors will be welcome.

A Botanical Excursion Along the Cowarr-Boola Boola Forest Road described by Mr. W. Jernakov:

The last excursion of the Club had a special goal to see the Wattles and wildflowers at the beginning of Spring along the Cowarr-Boola Boola Forest Road. The meeting place was at the old and historic township of Toongabbie, and a surprisingly large number of cars carrying members and visitors gathered in the vicinity of the one remaining store.

Those who travelled through Yallourn North and along the Latrobe River viewed with pleasure the Weeping Willows growing along the river and the creeks, their light green leaves looking especially attractive against the darker green of the rich pastures. At this time of the year the typical colours of this landscape are fresh and bright.

Setting out from Toongabbie at about 10.15 a.m. on the excursion proper, the party travelled a short distance to the foothills where Miss Galbraith, the leader, drew attention to specimens of the Golden Wattle (*Ac. pycnantha*) and Spreading Acacia (*Ac. diffusa*). Nearby were flowering Red Box (*E. polyanthemos*), which usually grows on the flats. Here Mr. Homann found Mistletoe with fruits and Tea-tree (*Leptospermum ericoides*).

The next stop was on the top of a ridge - quite a different region. Here we saw Messmate (*E. obliqua*); Mealy Stringybark (*E. cephalocarpa*) which grows typically on a poor soil. Among the Wattles were the Narrow-leaved Wattle (*Ac. mucronata*); Blackwood (*Ac. melanoxylon*); and Silver Wattle (*Ac. lealбата*). It was unusually represented by Silky Hakea (*Hakea sericea*), which mostly grows in the dry places. Also were seen here Hill Banksia (*B. spinulosa*); Honeypots and Sundew (*Drosera* sp.), which grows in places which are short of nitrogen.

In the valley of Ostler's Creek were seen several Silver Wattle, Pinkeye (*Tetratheca ciliata*); Candles (*Stackhousia* sp.); Tough Rice-flower (*Pimelia axiflora*); Prickly Currant-bush (*Coprosma* spp.); Gristle-fern (*Blechnum cartilagineum*); small Try-leaf Violet (*Viola hederacea*); Sphagnum.

There were two Orchids, Common Bird-orchid (*Chiloglottis gunnii*); and Maroon Hood Greenhood (*Pterostylis sedunculata*).

The lunch stop was at the turn-off to the old road to Brunton's Bridge. Here were observed Varnish Wattle (*Ac. verniciflua*) in blossom, more Blackwood, and Silver-top Ash (*E. Sieberi*). Also were several species of ferns, including the Soft Tree-fern (*Dicksonia antarctica*); Soft Water-fern (*Blechnum minus*); Hard Water-fern (*B. procerum*); Common Bracken (*Pteridium esculentum*); Hairy Bracken (*Pteris comans*); Batwing Fern (*Histiopteris incisa*); Scrambling Coral-fern (*Gleichenia microphylla*); and Mother Shield-fern (*Polystichum proliferum*).

The opportunity was taken at the lunch stop to thank Mr. Lightbody, who had come from Portland to talk to members on birds at the meeting on the previous Wednesday night, and to present him with a frame of pressed wildflowers, prepared by Miss Jean Galbraith. This was done on behalf of members by the President, Mr. Ern Homann.

The party proceeded along the track towards the Tyers-Walhalla road, and on the way saw Common Red Heath (*Epacris impressa*) in full rich blossom. At a stop along the track Miss Galbraith pointed out specimens of Myrtle Acacia (*Ac. myrtifolia*); a very rare plant which occurs only in this area in Victoria *Tetratheca glandulosa* var. *albofolia*. In the same locality were also seen Blanket-leaf (*Bedfordia salicina*); Bent Goodenia (*Goodenia geniculata*); Prickly Bish-pea (*Pultenea juniperina*); Large-leaf Bush-pea (*P. daphnoides*); Handsome Flat-pea (*Platylobium formosum*); Golden Guinea-flower (*Hilbertia stricta*); Varnish Acacia in blossom; Sunshine Wattle (*Ac. botrycephala*); Common Cassinia or 'Dogwood' (*Cassinia aculeata*); and the beautiful Love Creeper (*Comesperma volubile*).

It was here that a snake was seen (variety unknown) which attracted some attention.

Continuing, the convoy of cars travelled to the junction of the roads, and turned towards Tyers, where a stop was made at the Boola Boola Forest Reserve. There were many Golden Wattles in full bloom, and among further plants seen were the Spoon Rice-flower (*Pimelea spathulata*); Common Beard Heath (*Leucopogon virgatus*); and Pink Beard Heath (*L. ericoides*). At the stop near the boundary of the reserve thanks were said to Miss Galbraith for her excellent leadership and, after another rewarding day, the members returned home.

--- V.K. ---

A PEST SPREADS by Mr. Ern Homann:

When I left Warragul in 1920 to attend Melbourne University, the European Blackbird was quite unknown there, though fairly plentiful in the University grounds and the suburbs.

I returned to Gippsland in 1926, spending some 12 years in the Wonthaggi district, and to my knowledge there were no blackbirds in the district then, nor for quite a distance around the area. However, the story was different on my latest return to the Gippsland area in 1951, where the

birds had become very common in the Yallourn area, and had spread by that time as far east as Lakes Entrance. In 1958 some birds were heard on the Bennison River close to the old Princes Highway. Now this year they have been heard at Merrimbula on the far south coast of New South Wales.

It seems that this pest is rapidly extending its range along the coast and, with its spread, so will the blackberry take over more and more areas, particularly in forests and unsettled parts. Should it reach fruit-growing areas, particularly those concerned with growing soft-fruits, it could cause serious losses.

--- E. Homann ---

HAZELWOOD ARBORETUM by Mr. W. Parsons:

About 50% of the trees planted in September 1964 and May 1965 have died as a result of damage by frosts and rabbits or hares, the smallest plants being the most vulnerable.

In the light of this experience it has been decided by the sub-Committee not to plant the 200 trees received from the Natural Resources Conservation League until they are bigger. These trees will be repotted by Mr. Croft into 7 lb. tins and held until next year, when they will be more resistant to frosts etc..

The losses in the middle row of the Switchback Road windbreak are to be replaced this Spring with the hardy species *Melaleuca armillaris*, and *Melaleuca pubescens* if seedlings of sufficient height can be arranged. The same two species are to be raised from seed by Mr. Auchterlonie for planting in the centre row of the Midland Highway windbreak next year.

More helpers are required at the monthly working bees if the young trees are to get the attention they need. Those members who are not free on the second Saturday in the month to come to the regular working bees can do valuable work at any time weeding and tending those young trees which are not yet firmly established.

Members who do go out to weed should look at the notice board in the hut for the latest information regarding what requires to be done, and themselves leave a note stating which area has been weeded by them.

--- W. Parsons ---

TOP POINTS FOR ROAD COURTESY by Mr. Reg Stephens:

This is only a short story but one which it is considered deserves some publicity.

During the afternoon of Saturday 18th. September, 1965, I had been privileged to accompany delegates to the Science Teachers' Association of Victoria conference on an excursion to Coopers Creek and Walhalla.

Returning home along a main road through bush country at night my driver brought his vehicle to a complete stop some distance before reaching the stationary erect figure of a wallaby on the right-hand side of the road. Mr. Wallaby appeared to be uncertain as to his next move, but eventually decided not to exercise his 'right-of-way', engaged reverse gear and disappeared into the forest. My driver then remarked, "Oh well, now that he is safely out of the way, we can proceed", which we did.

Within a mile another character appeared low in the right-hand side gutter at the edge of the road and once again the car was brought to a standstill. The newcomer showed his appreciation of the courtesy extended to him, and shuffled across at his best speed. It was the first live wombat I had seen for many years.

Top points are awarded my young driver, and while no doubt he is not anxious for his identity to be disclosed here, it was felt that his splendid example should be acknowledged and copied.

While it is recognised that a motorist cannot always avoid the animal which suddenly darts from cover across his path, it does seem that road mortality among our native fauna would be considerably minimised if all drivers acted as described herein.

--- Reg Stephens ---

BIRD-LIFE: A talk given by Mr. Lightbody and described by Mr. Frank Jones. General Meeting Wednesday 22nd. September 1965.

At this meeting members and visitors saw a splendid collection of colour slides which were presented and described by Mr. Lightbody in a very able and entertaining manner. Apart from the pleasure people get from seeing and hearing these things, talks such as this play an important part in the conservation of bird-life.

Often elusive, the birds are inclined to be ignored by many people, and it is the role of photographers, writers, artists and others to depict them in all their natural beauty. People like Mr. Lightbody can show us much of the interesting bird-life that is around us, and this applies as much to our own area as to the district in which the slides were taken, for nearly all the birds mentioned by him occur also in Gippsland.

The first of many lovely birds shown was the Dusky Wood Swallow. This bird always reminds me of the long, lazy Summer days when we can sit and watch them glide and perch in friendly groups, and build their flimsy nests, sometimes in the most exposed places, all typical of a care-free vagabond bird of the dry Summer woodlands. Next we saw a bird well known in the bushland and garden, the Eastern Spinebill, the nests of which are usually so well concealed that the finding of one is itself an achievement, and when found, although the bird sits quietly enough, its colours are such as to make it a difficult subject for any photographer.

Then we saw the Sacred Kingfisher, a brilliant bird of the river country, at the entrance to its nesting hole. A glimpse of rare beauty to be marvelled at whether on the screen or in the field.

We saw the odd-looking Tawny Frogmouth posing as a broken off branch of a tree, and as usual facing away from the trunk to make the illusion more convincing. Then on to the friendly Grey Thrush, the melodious whistler and trusting companion of all who are fortunate enough to have them around their homes. The Red Wattle-bird was seen with all its striking grey and black markings. This is a bird of the parks and gardens as well as the bushlands whose harsh calls are not always appreciated. The dapper White-naped Honey-eater at its neat nest was followed by an interesting slide showing the nest of the same bird containing three eggs - two of the Honey-eater and one of a Cuckoo.

A slide of our old friend the White-eared Honey-eater was shown next, and then a stranger, the Singing Honey-eater, which is not found in Gippsland. Well known to most people was the White-plumed Honey-eater although it does not seem to be common in this area. We saw some remarkable close-up shots of the Loran at its mound and heard something of the interesting habits of this bird. Then two commoners, the Noisy Miner and the Wag-tail, the latter with its quaint young ones perched close to the nest.

The Blue-winged Parrot, perhaps still occurring in some parts of Gippsland, but more common in the Mallee and Wimmera, was shown at its nesting hollow, and the bright-eyed young ones crowded together in the nest made a charming sight. The Black Swan was shown in its most elegant pose, and was followed by a pretty view of the female Swan and her cygnets. Another water-bird, the White-headed Stilt was then seen carefully folding its long legs as it settled down to brood the eggs. The White-winged Triller, an occasional visitor to the South, was shown at its nest, the male and female differing greatly in appearance.

The Brolga, which has disappeared from many of its former haunts was well illustrated as also was the Eastern Swamp-hen (a bird well known to us), and the Yellow-billed Spoonbill. A colourful pair of birds, the tiny Striated Pardalote, and the brilliant Rainbow-bird were next on the list, and it would take a long description to do them justice. The strikingly marked Ground Thrush was there, and the pretty Rufous Fantail, so tame that they can apparently be handled and released without using much distress.

The Spur-winged Plover and the Gannets made interesting studies of free birds of the open spaces, photographed with Mr. Lightbody's most enviable skill and patience. The Scarlet Robins were depicted with all their charm, and also the Red-capped Robin which is very rare South of the Dividing Range. The wary Quail-thrush, photographed at its nest, provided a better view than that occasionally obtained in the field. The seemingly endless variety of the slides was maintained with the Goshawk and the Painted Quail, and a magnificent shot of the male Golden Whistler on the nest. Then we came to the rare and cautious Rufous Bristle-bird timidly approaching its nest. A shy bird of the undergrowth, we can only wonder at the patience required to photograph it.

Followed the Hooded Dotterel of the sea-shore and the Little Grebe of the swamps. Then the Striated Field-wren, a stranger to most.

The pleasant and informal manner in which Mr. Lightbody entertained us was greatly appreciated, and we were pleased to have shared in the enjoyment of the fascinating and instructive activities from which he obviously also derives so much enjoyment.

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MONTHLY NEWSLETTER

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ENJOY'

President

Mr. E. Homann,
84 Hennessey Street,
MOE.

Secretary

Mr. S. Belgraver,
179 Lloyd Street,
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LATROBE VALLEY FIELD NATURALISTS' CLUB.

ISSUE NO. 24.

Yallourn,November 1965.

Dear Fellow Field Naturalists,

General Meeting, Wednesday 24th. November:

The speaker at the next General Meeting, to be held at the Morwell High School, commencing at 7.30 p.m., will be Mr. Jack Hyett.

Mr. Hyett is the author of many essays and articles on a wide variety of aspects of natural history, and of the companion volumes, "A Bushman's Year", and "A Bushman's Harvest". He is an extremely versatile and interesting writer, and his forthcoming talk should be another highlight in the history of this Club.

Mr. Hyett's philosophy and aims are expressed in his foreword to "A Bushman's Harvest", in which he wrote (among other things), "The author of this book has found so much pleasure and interest and delight in the plants and animals of the bush that he wants others to see the bush with his eyes, and experience the same wonder and awe as he has experienced - and here comes the ulterior motive ! If his writings can induce in his readers a greater love of the bush, then they will have contributed in some small way to its preservation, and his purpose will have been achieved".

The reader of Mr. Hyett's writings cannot fail to be infected with at least some of his great enthusiasm for the things of nature, as represented by the plants and animals of the bush.

Excursion to Loch Sport on Saturday 27th. November:

Members attending the excursion are asked to meet in the vicinity of the Old Post Office (now Commonwealth Offices), at Sale, at 9.30 a.m.

The leader is to be Mr. F.C. Barton, who spent many years in the area to be visited, and has an extensive knowledge of its history, botany etc..

Those members requiring transport are asked to make arrangements well beforehand with their usual contacts, or with one of the following:-

Miss Nancy Rossiter.	Yallourn	52 392.
Mr. K. Eldridge.	Traralgon	72 503.
Mr. E. McElroy.	Morwell	42 226.
Mr. E. Homann.	Moe	295. 8.30 a.m. to 4.30 p.m.

Notes from the Executive Meeting, held on Friday 12th. November,
at the home of Mr. & Mrs. Jim Peterson:

Native Plants Exhibit - Trade Fair, Kermot Hall, Yallourn.

An excellent display of native plants, grown principally in private gardens, was prepared by Mr. W. Jernakoy, Mrs. L. Padfield, Mr. & Mrs. Frank Branson, and others, at the invitation of the organisers of the Trade Fair. While, as a non-commercial entry, the interest in the exhibit was not particularly great, it provided some publicity for the Club and its aims, and was well worth while.

Programme for 1966:

A comprehensive list of places for excursions and subjects for general meetings is to be considered by a Sub-committee, and the programme (always tentative because of a variety of circumstances), will be made available to members as soon as practicable.

Club Library:

Mr. Jim Peterson, the Club Librarian, has undertaken to provide a list of books of reference for future publication in the Newsletter. It is hoped that this might result in members making greater use of them.

Acting Excursion Secretary:

During the absence of the Excursion Secretary, Miss Nancy Rossett, during the early part of next year, Mrs. Lorna Padfield will act in her stead. This position is not a mere courtesy one, and entails quite a lot of work on behalf of the Club.

Fosters Gully Reserve:

The interest and the efforts of the Shire of Morwell have, it is understood, brought the matter of the creation of Foster's Gully, an area of approximately 350 acres, as a nature reserve, to near finality.

This Shire is particularly aware of the need to reserve and protect suitable areas in the face of rapid development and despoilment. As a Club we are grateful to the Shire President, members of the Council, and the officers of the Shire, for their practical interest.

Next Executive Meeting:

The next meeting of the Executive Committee, the last for 1965, will be held at the home of Miss Jean Galbraith, Tyers, at 7.30 p.m., on the 3rd. December.

Excursion to Wilson's Promontory, described by Mr. E. Homann:

With the promise of fine warm weather ahead of us, our party of some forty gathered at Wallaby Lodge around midday (more or less), on the 23rd. October. Some hardy spirits were camping, and the overflow from Wallaby Lodge were accommodated in Wombat.

The greatest impression on the Yanakie plains, through the sand-dunes, and around Tidal River, was of blossoming shrubs. Chief among these were the coast tea-tree, paper-bark and Burgan. The last was so covered with its cream blossom and was so full of nectar that its perfume was everywhere.

After the adults had admired the convenient appointments of Wallaby Lodge, and had lunched, the younger members disappeared beachwards. With the growth of tea-tree so dense around the lodges, it was remarkable how quickly young and old could disappear. The small brown snake seen by some members was no exception. Birds around the settlement were quite unafraid, the crimson rosellas particularly so. Eastern spinebills and Yellow-winged Honey-eaters were having a glorious birthday among the blossoms, while yellow robins watched us with their usual air of detachment.

On the arrival of Mr. Ros Garnet and his wife, our party set off for the parking area on the northern shoulder of Mount Oberon. This was the terminus of the Bad Saddle of earlier days when the bridle track crossed the flats to the foot of the slope and then went straight up, or so it seemed. At the parking area signs printed optimistically 'To Lighthouse 5 hours', 'Sealers' Cove - 3 hours'. We decided on an hour or so of the latter. It is a fascinating track on the hillside, an easy grade as far as we went, with granite boulders of all sizes on both sides of the track, and an outlook far over the valley. Flowers were everywhere - orchids, pink-eye, bush-peas of various species, bearded and common heath, the lemon bottle-brush, Correa and late blossoms on very large prickly moses. Ferns were plentiful in the moist spots. The younger people soon found numerous skink lizards which found the warm day to their liking as they basked on the rocks.

Saturday evening we were treated to a series of excellent slides, in colour, shown by Mr. Miller, Head Ranger. These were excellent in their coverage showing scenery, animals, birds, insects and flowers of the Park. After thanks had been said to Mr. Miller, we adjourned after a cup of tea.

Miss Nancy Rossiter, as excursion Secretary, had arranged for a few rain showers to clear the air during the night, and Sunday dawned fine and clear. After packing up the party gathered at the Darby River, and one group under Mr. Garnet's leadership went down to the interesting beach at the mouth of the river. Here the striking feature was the cliff of aeolian dunes, which was constantly being eroded by wind and tide. It was fascinating to watch fine sand sliding down from high levels and being caught by the wind, drifted up in puffs of make-believe smoke.

Excursion (Cont'd)

Remnants of an aboriginal kitchen midden were investigated. Our leader said that a series of middens extended along the coast from Waratah Bay right down the dune country on the west of the Promontory. After rough weather, particularly high winds, the sand was often blown away exposing new layers of the middens till these were covered by sand again.

A few of the party took the track to Tongue Point, and this track scenically is well worth the effort. It climbs to a high ridge overlooking the ocean, and the views of the long ocean swell are magnificent. The track was through tea-tree and burgan mostly, though in one area it passed through a beautiful grove of she-oak.

All members gathered near the bridge for lunch, and we were pleased to see the Brewsters and the Rossiters from the South Gippsland area with us. After lunch many of our party set off for home, but a group of some six cars continued to have a look at the South-west corner side of the old jetty used in the early days for landing supplies. Shortly after leaving the main road we stopped to gaze in wonder at the wild-flow-er garden on both sides of the road. Though the plants were dwarfed by the sandy soil, and the ever-present wind, their colours were magnificent.

At our next stop occurred to some of us at least the highlight of the weekend. Growing in a swamp beside the road we found a small onion-orchid (*Microtis orbicularis*). This had been recorded by the author at Wonthaggi in the 1930's, it then being known only from a few localities in South Australia. Later it was found at Portland. Owing to settlement, it is doubtful whether it exists in either place now, so that this find was very welcome.

Going on to the end of the road we took the old sandy track leading to the old jetty. This was grass-tree country, with occasional boulders of granite thrusting above the low growth. Finally the party reached the muddy shores of Corner Inlet with its groves of mangroves backed by very large banksias, and groves of tea-tree inland.

It was a tired group which gathered at the cars to say thanks to Mr. & Mrs. Garnet for a wonderful weekend. Some of the party, among them our leader, even had enough energy to stop near the old Yanakie homestead to search for the rare and beautiful Leafy Greenhood, and, of course, after such a weekend they were successful with oven slides to prove it!

--- E. Homann ---

Some Random Notes by Mrs. M. Hague:

The Depredations of An Unwelcome Migrant:

Early one morning at about 6 a.m. my little dog was barking excitedly and, on going into the garden to investigate, I saw a fox just over the fence. At sight of me it quickly ran up the irrigation channel bank and disappeared. Since then many of my poultry have vanished - Til

the grey rooster; Annie, a small hen; the ancona, my pet bantam Bluey. On going out to feed my chicks, I found the board of their box had been scratched off, the mother hen and nine chicks gone, only a few feathers left. It is the chooks habit to lay on the hay bales under the shed, but if they happen to go clucky and stay on the nest - woe betide them - all that is left is a snow of feathers. Reynard is noted for being crafty and sly and if out during the day he sneaks between the banks of the channel, dry creeks etc.. There is so much cover in the bush that the fox is becoming more numerous and an even greater menace to wild-life, to say nothing of the havoc they create in the poultry yard.

An Echidna:

I recently saw an echidna toddling in the paddock, his little anteaters nose foraging for his food in the grass. He took no notice of about a score of heifers inquisitively gazing at him, but as soon as I and my daughter-in-law crept near to take a photograph he hid himself, scratching down into the soil. All we could see were his spikes, but when we returned later he had gone.

A Pair of Beautiful Rainbow-Birds:

I saw a pair of Rainbow-birds as they flew onto the garden fence. My son thinks they are nesting in the river bank (they make a slanting burrow in the ground). Referring back to my previous notes on the 'Salaman-ders', I have seen only two of them so far, when I went down to the old river last week, and one of these was very tame.

--- M. Hague ---

Eastern Water-Rat: From the Victorian Naturalist by Jim Peterson:

The animal was sighted in the South Cascade Creek, on the Thomson Valley Road, about 14 miles from Erica township at an altitude of 2700'. At 3 p.m. on April 16th., when the creek was running unusually high, Mr. Peterson saw the water-rat swim up and down a 20' stretch of water for some time. The animal was 15 - 18 inches from nose-tip to tail, with dark coloured upper parts and whitish underneath. The tail had a white tip. It was swimming with its head just breaking the surface, moving on one side of the body then the other, giving a fast snake-like motion.

The rat was seen to make 8 - 12 trips from a small underground distributary of the creek to a point about 20' upstream, hidden by overhanging treeferns at the mouth of the little stream. On each trip it carried 2 - 3 inches of the tip of a fern frond in its mouth, from the fern bank to the tunnel of the distributary. Approximately one minute was spent under the ferns and two minutes in the tunnel on each trip. The fern collected was probably the Fishbone Water-fern (*Blechnum nudum*). Ray Water-fern (*B. fluviatile*) which was growing along the edge of the main stream was not touched.

On one occasion the fern frond caught in the mouth of the tunnel. The rat performed a back-flip, exposing its white under-surfaces, and caught hold of the fern. Finding the fern firmly caught, it returned for another without entering the tunnel. After its last trip, the rat came out of the tunnel to the entrance, unhooked the piece caught there and was not seen again.

The Water-Rat (Cont'd).

The Rat was observed from a footbridge 6' above the mouth of the tunnel. An attempt was made to photograph the animal by flashlight, and after the first flash, which caused it to dive, it took no notice. The animal was not sighted again during the next few days which Mr. Peterson spent in the area.

--- J. Peterson ---

(The preface to this article was as follows;- "Mr. Jim Peterson of Morwell has sent in a very interesting account of the activities of an Eastern Water-Rat. This is a valuable piece of information about the behaviour of *Hydromys chrysogaster* of which little is known")

Talli Karng. (The Hiddon Lake). by Mrs. M. Hague:

(Mrs. Hague has sent in the following lines on Lake Talli Karng. For the few who may not know where this lake is situated, it is at about 3000' elevation, near Mt. Wellington, and had its origin in the blocking of a former valley by a landslide. It is a goal for many hardy bush-walkers, and can be reached from a turn-off on the Tamboritha Road (not by vehicle but on foot), or rather closer from Rintoul's Track beyond Mt. Wellington and Spion Kop. (Ed))

Talli Karng is nature's child,
Dwelling in the mountains wild.
Her voice a breeze stirred ripple,
And smile a patterned stipple.

She's content to stay at home,
'Twas not meant that she should roam.
Her child's the dipping swallow,
There's no one she must follow.

My love is tender, deep as the pools of your eyes
That reflect the smiles of summer skies.
Gilded by sun, silvered by moon,
Breathing coolness in the heat of noon.
My love tender, and oh so true
Talli Karng I sing my song to you !

--- M. Hague ---

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A NORTHERN JOURNEY by Mrs. Ellen Lyndon:

During the September holidays some members of our Club joined the Field Naturalists' Club of Victoria during their week's excursion to the Mildura-Red Cliffs district. Our hosts, the Sunraysia Field Naturalists, a strong and active body, had planned an outing for each day, and the weather was very kind to us. We were a little too early for the flowers of the Mallee, but certain small wattles and daisy-bushes enlivened the roadsides as we travelled.

Red Cliffs is one of the many Murray townships surrounded by vineyards and orange groves - the hard-pruned vines were only just beginning to show green shoots, but the oranges were very colourful, and so cheap. Small sweet navels, sound and firm but bearing some blemish that made them unacceptable to the packing houses, sold at five or six shillings a case, and our party took full advantage of them. The mallee gums and a few hardy native shrubs still persisted in the township, but for the most part the roads were lined with tall and ancient palms, olives, oleanders and jacarandas. One of the tamarisks is also extensively used, a beautiful grey feathery tree that thrives in the hot Mallee sand.

As usual, we did far too much travelling, and too little field work, but we did see a great deal of the country on the Murray on both sides of the river. The highlight of the week was our boat trip by paddle steamer to Merbein and back, the boat was chartered and filled by our own party, a day of sheer perfection on a river of mirror smoothness. Being used to the Tarwin I could easily become lyrical about the Murray, that glorious broad tree-lined stream. Past Mildura the river flows through a flat flood plain, and would probably be bare and uninteresting if it were not for the high silt banks thrown up on either side, crowned with a thick belt of red gums. These hide all sight of commerce and agriculture from a sailor's view, and the river itself probably looks much as it did when Sturt made his historic voyage and christened it the Hume. Waterbirds were there in plenty. Ducks of various kinds, cormorants, eagles, pelicans, spoonbills, all just trailing out of our way in leisurely manner. Near Apex camping park there are wide yellow sands on a bend of the stream, an ideal beach for holiday-makers and sun-lovers.

One day we spent at Hattah Lakes and surrounding National Park. Only a few minutes off the highway, it is a spot none should miss when travelling north. Kangaroos and emus, watched over by an energetic ranger, were quite easily approached, in marked contrast to the nervous fear of those we saw elsewhere. By dodging from bush to bush one evening, I managed to worm my way into the centre of a mob of feeding kangaroos. There were about thirteen of them, some grazing, some stretched out in the late afternoon sunlight, lazily scratching their tummies. It was most amusing to watch the little joeys leaning out of their mothers' pouches. Having nothing better to do than to gaze around the landscape, they soon spotted me, and their agitation was plain to see. When an adult head was raised in listening attitude, I remained perfectly motionless. When all resumed feeding, I moved forward once more. One could almost hear the joeys thumping their unheeding mothers' legs and saying, "Look Mum, look ! See what's coming ! " We drove through a mob of emus on another occasion and kept

Northern Journey (Continued).

them handy by the old hat-waving trick, but they would not approach the car too closely. Even in the park some poaching goes on, but it is a pleasure to see even the reasonably confident animals in the wild state. Birds were plentiful around the lakes, and we became familiar with the many lovely Mallee parrots in the surrounding red gums.

Tall red cliffs line the Victorian side of the Murray, and give the township its name. The cliff-tops are sprinkled with broken mussel and snail shells from the stream bed below, and one can trace the layers of these aboriginal middens for depths of ten feet or more in the cliff-side, built up over thousands of years by the natives carrying the shell-fish up and cooking them on the high banks. The Murray region maintained a numerous aboriginal population around the river and its swamps and lagoons, and the local Field Naturalists' Club has built up a splendid collection of tools and weapons in stone, bone or wood, as well as several skeletons of the previous owners. The Club is making special efforts to gather material from the saltbush plains and sandhills on the N.S.W. side of the river before that country is inundated by the waters of the great Chowilla Dam.

One of the day excursions led us by many miles of dirt and clay roads, through station properties, as far as Lake Victoria in New South Wales. There is a series of lakes hereabouts that are really swamps dammed back to hold permanent water. I think there is no more melancholy sight than an expanse of grey water with dead trees sticking up out of it. Large stick nests decorated many of the trees where birds had been busy, so 'it's an ill wind that blows nobody any good'.

At a small weir on the outlet of the lake we found fisher folk desperately busy, hauling up large struggling fish as fast as a line could be dropped in. It seemed that the redfin were spawning, and were fighting to climb the wall of the weir. Some of the fish lay gasping on lodges where they had jumped and fallen. Cormorants slithered and dived in the foam, to emerge gulping down fish that were obviously too big for them. We watched awhile till the bus turned for the long journey home. But not those opportunists from Latrobe Valley! We remembered we had a rod and line on board somewhere, and one rubber minnow! It was enough. The Petersons and the Lyndons jostled the cormorants and the fisher folk on the bridge for elbow room, and in their turn were soon flipping fine fish back over the heads of the crowd in local professional style. We each took our turn, in some excitement, on that one slender rod. The redfin queued up for that rubber minnow. We were told later that redfin are crowding out the choicer fish from northern streams, and every man's hand is against them. Passersby said the fish are delicious eating. But, if you really want to start trouble, ask the Petersons some time how one prepares redfin for the pan - in a caravan park - in the dark!

(Note: Redfin is another name for English Perch, which are prohibited for Gippsland streams and dams).

A CAUTION! by G.T. Scanlan.

The serious student of Natural History of whatever stage or standard of knowledge must, of necessity, refer from time to time to books, to periodical publications, papers etc., for the purpose of obtaining information, to refresh the memory, or to check other references. When doing so, care should be exercised to ensure, as far as possible, that the source of information is authoritative and accurate.

This may appear to be stating the obvious and therefore unnecessary, but there is a tendency for some of us to regard the written word, whatever the source, as completely reliable and to be accepted without question. This blind faith is not always justified, and it is possible for the enquirer to acquire information of dubious accuracy and validity.

Dictionaries and encyclopaedias are usually regarded as unimpeachable sources, but some, although containing much valuable and apparently reliable information, have been shown to be suspect in many respects. Some members will have seen references to, or perhaps read a book published in 1964, titled 'The Myth of the Britannica', by Dr. Harvey Einbinder, an American physicist, which detailed hundreds of purported inaccuracies and other deficiencies in a costly, many-volumed encyclopaedia.

This is not to be regarded as an attempt to debunk dictionaries and encyclopaedias, but the foregoing and what follows is the result of a random check by the writer of several references in an 'Encyclopaedia Britannica' published for and currently being sold by the Reader's Digest Association, which had been obtained on an 'if you don't like it you can return it' basis.

In the dictionary section the Wombat, of interest to us as Field Naturalists, was described as "... a browsing, herbivorous marsupial of the genus Phascogale, native to South Australia and Tasmania". The uninformed reader would understandably be led to believe that this interesting marsupial was restricted to the genus, and that its distribution was confined to the two States mentioned. This is not so in either case, there are, in fact, three genera of Wombat, and the Wombat is variously distributed in southern and eastern Australia, in Tasmania, on Flinders Island, and in Central Queensland.

The three genera are Phascogale, Vombatus, and Lasiorchinus, but only the two latter of these are represented by living species, and unfortunately Phascogale is an extinct genus. The living genera are not referred to in the dictionary but, by implication, the extinct genus is to be regarded as the only living genus, or the only genus. While it is accepted that the compilers of this probably in many respects admirable work inserted the reference to the Wombat in good faith, it is evident that someone was remiss in not adequately checking a source or sources of information.

The two living genera of Wombats, Vombatus and Lasiorchinus, are each represented by two living species. Vombatus is popularly known as the Common Wombat, and the two species are hirsutus and ursinus. V. hirsutus is found in an area ranging from the eastern part of South Australia, through southern Victoria to the north coast of New South Wales, and is the species sometimes seen (for it is nocturnal) - more often dead - during travels and wanderings along Gipp's Land and other roads and tracks. V. ursinus, the Island Wombat, is smaller than hirsutus, and is now restricted to

A Caution (Continued).

Tasmania and Flinders Island, although it is said to have once occupied other islands in Bass Strait.

Genus Lasiorhinus is called the Hairy-nosed Wombat, and L. latifrons, the Southern Hairy-nosed Wombat, is found in an area from the western side of the River Murray in South Australia, across the Nullarbor Plain to the border of Western Australia. The second species of this genus, L. gillespiei, occurs in Central Queensland and, strangely, (in the absence of an explanation for the discontinuity), a sub-species of L. latifrons, L.l. barnardii, is also found in the latter area.

It is shown that distribution of the Wombat is much more extensive than the dictionary would lead the earnest seeker after knowledge to believe.

Among the differences that distinguish the two genera are the hair, which in Vombatus (the local genus) is a very dark brown or black, and coarse and thick; and in Lasiorhinus grey and very fine and silky; and the ribs, of which Lasiorhinus has thirteen pairs, and Vombatus fifteen pairs. There are other physical differences, and the burrowing habits differ between the two - it is said that Lasiorhinus, the Hairy-nosed Wombats, construct communal warrens on flat limestone plains, whereas the burrows of the Common Wombats usually consist of a single entrance at the base of a tree or rock in the hilly or mountainous eucalypt forests where they usually live.

There were, formerly, probably eight species of Vombatus and four species of Lasiorhinus - now only a total of four species remain ! As settlement encroaches more and more on their habitat and feeding grounds, and scalp-hunters and angry farmers destroy them in ever larger numbers, the present living species can be expected to be still further reduced. The Wombat is one of several animals referred to as 'living fossils', it is uniquely Australian but of world-wide interest. It was surely worthy of a much more comprehensive and accurate description in an Encyclopaedic Dictionary apparently intended for wide circulation in Australia.

The purpose of this article was to sound a note of caution, and the writer is therefore under an obligation to assure members of the authenticity of the above statements. Their authority, as far as reference to the Wombat is concerned, is B.J. Marlow, B.Sc., Curator of Mammals, Australian Museum, in 'Australian Natural History', Vol. 15. No. 3, September 1965.

(This authoritative Journal, issued quarterly by the Australian Museum, Sydney, at a cost of 14/- a year, is a source of invaluable, extremely interesting information, on a variety of natural history subjects, provided by specialists in their particular fields).

--- G.T.S. ---

G.T. Scanlan,

EDITOR.

LATROBE VALLEY FIELD NATURALISTS' CLUB.

Club Aims:

To promote an interest in native plants, birds and animals, geology and marine life, and to assist in the establishment of nature reserves. To protect, so that we and others may enjoy.

.....

General Meetings:

Are held on the fourth Wednesday of each month at the Morwell High School, starting at 7.30 p.m.. A talk, usually by a specialist in some branch of natural history and illustrated by slides or movies and/or specimens, follows the short business part of the Meeting.

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Excursions or Field Days:

Regular field days are conducted on the Saturday following the General Meeting. A programme of meetings and excursions arranged up to February 1966 may be obtained from the Secretary.

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Annual Subscriptions:

10/- for a single person, 1/- for juniors, and 15/- for a family. Subscriptions may be paid to the Secretary or the Treasurer, Mr. E. McElroy.

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If you desire further information regarding the activities of the Club, you are invited to get in touch with any of the following:-

<u>Moe:</u>	Mr. E.H. Homann, 84 Hennessey Street.
<u>Morwell:</u>	Mr. J.M. Peterson, 14 Barry Street.
<u>Traralgon:</u>	Mr. K.G. Eldridge, 39 Lafayette Street.
<u>Yallourn:</u>	Mr. G.T. Scanlan, c/o L.V.C. Hospital.

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Contributions to this Newsletter:

Contributions relevant to the interests of members and the aims of the Club are invited and should be addressed to the Editor, G.T. Scanlan, c/o L.V.C. Hospital, or handed to the Secretary.

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LATROBE VALLEY FIELD NATURALISTS'

CLUB.

TO PROTECT

AND

ENJOY.

ISSUE NO. 25.

DECEMBER 1965.

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LATROBE VALLEY FIELD NATURALISTS' CLUB.

ISSUE NO. 25.

DECEMBER 1965.

Dear Fellow Field Naturalists,

At this time of the year most organisations, as such, go into a state of suspended animation for a period, to permit members to take part in the sometimes hectic round of activities, celebrations, holidays etc., that are the traditional pattern of the season. And this Club is no exception, there is neither general meeting nor excursion during the month of December, and our 1966 activities commence with an excursion to the Bernison High Plains on the 22nd January. Details of the excursion will be published in the January Newsletter.

The February excursion, on the 26th, will be to Phillip Island, with the principal object of viewing the Fairy Penguins as they return from the sea and proceed to their burrows for the night. It is intended to charter a bus for the trip, and it is important that members inform the Excursion Secretary, or the Club Secretary if it is their intention to take part, at least a fortnight before the date of the excursion. This is so that seats may be offered to non-members of the Club if all the available seats are not booked. Charges for the bus journey will be as follows, and the only additional payment will be a small charge to enter the penguin enclosure;--

Adults	25/-.
Children over 12	10/-.
" under 12	5/-.

It is expected that the bus will leave for Phillip Island at about 1 p.m. and, as the Penguins are not 'early birds', it will be a late return. More of this excursion in January!

EXECUTIVE MEETING:

The meeting of the Executive Committee was held at the home of Miss Jean Galbraith on Friday 3rd. December.

It was decided to recommend to members that the Club support a proposal by Mr. Rossiter that representations be made to reserve an area of 6001 acres in the Yarram District. A letter to this effect is to be sent to the National Parks Association.

Photoflora: It was confirmed that the Photoflora competition slides would be shown at the Morwell Town Hall on Friday 26th. March. As this would be the night of the normal general meeting, it is suggested that the Annual General Meeting be held on the preceding Wednesday night.

Car Stickers: The attractive design, by Mrs. Jacobson, of the Grass-tree has now been incorporated in an equally distinctive and attractive car sticker. It is to be submitted initially to the Victorian Field Naturalists' Club, and should be made available to members in the near future. It is hoped that all members of this and other Clubs with similar aims and interests will display the car sticker in a prominent position on their vehicles.

NOMINATIONS FOR OFFICE ON EXECUTIVE COMMITTEE:

Nominations for certain offices on the Executive Committee are required to be handed to the Secretary on or before the General Meeting on February 25th. Election will take place at the March meeting. Details will be given in a later Newsletter.

Programme for 1966: A tentative programme for 1966 has been prepared and will be presented to members for approval at the February meeting.

Change of Meeting Place: The meeting night for 1966 has been changed from the fourth Wednesday to the fourth Friday, and it is now proposed, and members will be asked to approve a change in the place of meeting from the Morwell High School to the Primary School at Yallourn. A large room with all the necessary facilities is available, and it is hoped that it will be acceptable to members. In any case, the first meeting in February next must, of necessity, be held here.

Next Executive Meeting: This will be held at the home of Mrs. F. Kinniburgh, Elgin Street, Morwell, on Friday 4th. February 1966.

Greetings: On behalf of the Executive Committee, the Editor wishes all members a Happy Christmas and New Year, with the hope that much of the happiness will come from observing in the field the things of nature, keeping in mind always the aim of the Club to 'protect and enjoy'.

A VISIT TO THE LAKES (Sperm Whale Head) NATIONAL PARK: Excursion Notes by Mr. S. Belgraver and Collaborators:

On Saturday November 27th. the excursion was to the Lakes National Park. At the side of the road, actually not much more than a track, were several signs advertising sites for holiday on this peninsula between Lake Victoria and Lake Reeves, and one of these read, 'Don't despair -- only 9 miles to go !' A little encouragement was needed to travel over there, but how rewarding the trip was in the long run. Only a few of us had previously visited this National Park, but everyone agreed that this was one of our interesting and worthwhile excursions. It is not intended to give an inventory of the Park, but to tell only about a few of the highlights.

After meeting the leader, Mr. F.C.W. Barton, the Ranger, at the entrance he guided us to a nice camping spot, where we had lunch. Under the trees surrounding this spot Blue Bells were growing in the grass. After lunch and an introductory talk we set out in a westerly direction along the track and soon saw a Sun Orchid, which had just finished flowering. We came to a man-made pond, where the birds come down to drink, and the bees were busy gathering the nectar. It was around this spot that we could see and hear the Golden Whistlers and the Rufous Whistlers. Beside the pond were Paper-bark trees with their loose thin bark.

Very soon we reached the shore of Lake Victoria where a strong wind was causing a heavy swell. Not far from the shore we noticed several groups of Black Swans, sometimes up to 20 or 30 in each group, bobbing up and down on the waves. Suddenly, as of one accord, a whole group

rose majestically from the water, the necks with the red beaks stretched forward. At that spot and going a little inland the ground was completely covered with a carpet of noon flowers, two species being present, the angular, with the three sided leaves and large purplish-red flowers, and the rounded noon flower with long brownish stem and many cylindrical leaves, and the attractive flowers with petals glistening rosy mauve-pink. Other succulents among the seashore vegetation were the New Zealand Spinach and the Glasswort with minute flowers in small clusters. A little further on we noticed the Seaberry Saltbush, a shrub with narrow greenish leaves and branched clusters of tiny mealy-white flowers, and one of our orchid friends Pink Fingers (*Caladenia carnea*).

After returning to the parking spot, a photographer member took a few pictures of the group. Travelling then in an easterly direction, our leader halted us to show quite a number of Flying Duck Orchids growing alongside the road. Being the emblem of the Club they had all our attention. Both the major and minor species were there, and the flowers of the former especially showed perfect little flying ducks. The leaves of the small duck orchid were narrow, the leaves of the larger one broader and wider at the base. Close to these were a few of the Pink Finger Orchids. Around were many of the Banksia, both the coastal and the silver banksia. After about half a mile we stopped the cars and walked up a track to have a look at the nest of an Eagle. At the side of the track were blue bells with their five petal blue flowers. Suddenly we saw high above us mother eagle, a Wedge-tailed, making all sorts of movements to distract us from the spot where the nest was situated. Very soon in a four-pronged fork of a tree we saw the nest, about six feet in diameter, composed of sticks and lined with soft bark leaves. It was so situated that the sitting bird had an uninterrupted view of the surrounding country. Two young were in the nest, but we could only see the tip of their heads. Mr. Barton, who had regularly observed the nest, told us that just recently the cap of the young birds, which was at first white, was changing to black. After a few minutes, apparently recognising us as Field Naturalists, one of the birds decided to have a look at us, giving us the opportunity then to observe it through the field-glasses.

Soon after we continued our trip, and Mr. Barton told us that we would go to the shore of Murphy's Swamp, with the possibility of seeing an Emu but, although his footsteps were to be seen, the bird did not appear. Near the swamp we noticed the Creeping Monkey Flower, while in the surrounding bush a variety of Rice Flower was growing. A Blue-tongued Lizard held up the convoy for a while by placing itself in front of the wheels of Mr. Barton's vehicle. Quietly Mr. Barton lifted the lizard on his hand, and showed it to the great delight of the children, some of whom had sufficient courage to touch it. After returning to the main road we saw a rare Brush Bronzewing Pigeon sitting in the middle of the track some 30 yards in front of the cars. The bronze patch on its neck could be clearly seen, and we walked quietly closer to the bird. Apparently relying on its protective colouring it stayed there for some time, but flew off when we had approached to within about 15 yards.

At the next stop we went to the side of Lake Reeves for a closer look at the water birds. Suddenly very close to us a Shellduck appeared, doing the 'broken wing act' in order to entice us away from its nest. It was completely successful, because despite a thorough search it was impossible to find. After a few more miles we came to the north-east point of

the peninsula, with a broad view about the surrounding lakes.

On behalf of the Club Mr. Ashworth then thanked Mr. Barton for a most interesting day. In his vote of thanks he mentioned the importance of having National Parks such as this, and also the valuable work of the Rangers, who do so much to maintain these areas for our own and coming generations.

--- S.B. and C's. ---

THE LAKES (Sperm Whale Head) National Park: Further Notes by the Editor:

The Lakes (Sperm Whale Head) National Park was proclaimed in 1927 with an area of 3586 acres, and extended to 5238 acres in 1958. Sperm Whale Head, so named (for very obvious reasons) because of its shape, is a peninsula, about nine miles long and from half to one and a half miles wide. Situated in the Gippsland Lakes, its northern shore is on Lake Victoria, and its southern shore on Lake Reeves, a narrow channel which separates the peninsula from the outer barrier of the Ninety Mile Beach.

Referring to the Lakes National Park in the December 1962 issue of 'Victoria's Resources', Mr. Bruce Nicholson, District Conservation Officer at Bairnsdale, said that the flora of the Park comprised over 320 different species, and made reference to the main varieties as follows:-

Coast and Saw Banksias, Narrow-leafed Peppermint, Manna Gum, Red Gum, Swamp Mahogany, Yellow Box, Fuzzy Box, Coast Tea-tree, Paper-bark, Boobialla, Black Wattle and other acacias, She-okos and Wild Cherry. The most notable shrub was Thryptomene micranthera, which is found in only the Sperm Whale Head-Dutson area and in Tasmania. He said that there ^{were} orchids, the Silky Tea-tree, Golden Grevillea, Fringe Myrtle, Bursaria, Sweet Wattle and the Variable Bossea, among others.

Fauna included Grey Kangaroos, Emus, Black-tailed Wallabies, the Wombat, Silver-grey Ringtail and Dormouse Possums, Gliders, the Australian Water Rat, Echidna, Hog Deer and at least 100 varieties of birds.

Erosion on the shores of Sperm Whale Head, as elsewhere in the Lakes has presented a problem, and some work has been done in an endeavour to reduce its effects. In 1962 a group of boys from Geelong Grammar School under the leadership of Mr. John Bechervaise helped in the placing of tea-tree brush sea walls and groynes on the Lake Victoria shore of the Park for this purpose.

Sperm Whale Head is a part of the mainland, but it came from the sea ! In making a brief reference to its origin it is necessary to look at the Gippsland Lakes as a whole, because Sperm Whale Head was formed during the evolution of the lakes area. The Gippsland Lakes are more properly called 'coastal lagoons', and are separated from the sea by broad sandy barriers. (The five river systems which flow into the lakes, Latrobe, Avon, Mitchell, Nicholson and Tambo, drain a catchment area of over 6,000 square miles). The barriers separating the coastal lagoons from the sea are sedimentary deposits composed principally of sand, built up above high tide level and standing off-shore.

Here there are inner and outer barriers - Sperm Whale Head being an inner and the dunes fronting the Ninety Mile Beach an outer barrier. There were prior barriers of which little evidence now remains, and inner and outer barriers built up, in that order by the deposition of sands over a long period of time, to us, but short from the point of view of geological time.

An extensive and intensive study of the Gippsland Lakes was made by Mr. E.C.F. Bird, M.Sc., Ph.D., and the results published in 'Geomorphology of the Gippsland Lakes' by the Australian National University Research School of Pacific Studies, in May of this year (1965). The following is a brief summary of some of his conclusions of stages in the development of the lakes which may be of interest to readers of this Newsletter.

1. The shaping of the coastal embayment (indentation) in which the Gippsland Lakes are now enclosed began in late Tertiary times. It was connected with and affected by the uplift of the Eastern Highlands, continuing subsidence of the Latrobe Valley syncline, and further movements of folding and warping in the south.
2. Shaping continued through Pleistocene times, (the period which began about 1,000,000 years B.P.), when further movements took place, and there were successive transgressions and regressions by the sea as a result of the waxing and waning of the Earth's glaciers and ice sheets. The earliest parts of the existing inner barriers were deposited in late Pleistocene when the sea stood at about its present level.
3. During the last Glacial phase the sea level fell by at least 300' and dissection of the prior and inner barriers took place with the draining of the lagoons, and extensions of the river courses to the lower levels of the sea floor.
4. There was renewed submergence of the land during the last Postglacial period (c. 20,000 to 6,000 years B.P.) to the present level of the sea. It was apparently during this period that the nucleus of the outer barrier was deposited, and deposition has continued to the present time to create the outer barrier as it is now.
5. During the building of the outer barrier outlets were gradually closed until there remained only the intermittent outlet close to Red Bluff (a marginal bluff or coastal cliff) through which as conditions permitted flowed flood waters from Cunninghame Arm, or sea water into the lakes. The closing of the outlets in the outer barrier excluded sea water, and led to a freshening of the water in the lakes. This encouraged the growth of vegetation, and, among other things, the encroachment of swamplands and the consolidation of silts of the river deltas.
6. The cutting of the artificial entrance in the outer barrier opposite Jemmy's Point in 1889 has had the effect of increasing the salinity of the lakes waters. One result of this has been die-back of shoreline reedswamp and other vegetation and the onset of erosion (in addition to the natural erosion by wave action) around the lake shores. Erosion is widespread on the shores of Lakes King and Victoria, and has halted the growth of the Mitchell and Tambo deltas.

7. An illustration of the quickness of the growth of the barriers is provided in the former intermittent outlet near Red Bluff which, after the cutting of the artificial entrance, has been permanently closed, and dunes built up which now fill a large part of the eastern end of Cunninghame Arm. This considerable growth has occurred in the very short time since 1889.

8. Mr. Bird is of the opinion that the greater part of the sand forming the inner and outer barriers of the lakes has been eroded or collected from the sea floor and carried shorewards during marine transgressions. It is evident that the sand came from deposits laid down previously as barriers or dunes on the emerged sea floor when the sea withdrew to low levels during glacial phases of the Pleistocene period. Some of it may be related to longshore drift.

Mr. Bird concluded his work with the words, "The Gippsland Lakes region shows clearly how ecological factors have influenced the evolution of dune formations and the shaping of lagoon shores, illustrating the importance of the vegetation factor in geomorphology".

How to weigh results ? The provision of an artificial entrance and an outlet for floodwaters at Lakes Entrance has reduced the effects of former periodical flooding of rivers associated with the lake system, and has provided a navigable outlet for commercial fishing and other vessels. These and some other benefits must be weighed against the continuing effects of the increasing salinity of the water in the lakes, the effect salinity has had on certain of the lake vegetation and consequent erosion. Man has an unfortunate propensity for destroying (often unwittingly) what has been created by natural forces over immensely long periods of time. Is this really happening at the Lakes ?

Some comfort can be drawn from the fact of the existence of National Parks such as that at Sperm Whale Head, where the work of Rangers in preventing, as far as possible, the destruction of the natural cover of the dunes which form the land and the shores of the lakes, will go some way towards preserving some part of a valuable and interesting area.

----- G.T.S. -----

NATIVE GARDEN AT LEONGATHA: by Mrs. Ellen Lyndon:

As a 'country' member of the Club I sometimes have pangs of conscience that, apart from a little overseeing and a few cheering words to the workers, I have done nothing to help those few devoted souls who endeavour to keep the Arboretum going. And I know how difficult it is to keep the growing trees free of weeds and grasses, having lived for years on the same kind of fine hard-packed soil myself.

Here in Leongatha I am establishing an Australian garden which takes up most of my surplus energy and time. The Shire granted the use of the land, almost an acre, fronting the South Gippsland Highway where it leaves the township going eastwards. I have planned a central grassed

area enclosed with wide borders of fairly closely planted trees and shrubs, mainly eucalypts, wattles, melaleucas, leptospermums, banksias, grevilleas, and callistemons. These will provide shelter for choicer flowering plants which I hope will follow in due course. Planting commenced on November 1st 1964, the ground being too wet to cultivate before that time although on rising ground. No water was needed or used in putting the plants in nor was any required through the summer to follow, except a little brought in for special favourites. No water was available on the site until much later.

The best part of the garden soil is loose and lovely to work, reddish but not volcanic. It is well interlarded with stone and screenings left over from a gravel dump. To the best of my ability the soil around each plant was kept well hoed and free of weeds which haven't been a problem until this Spring. Contrary to early teachings natives seem to appreciate loose free soil which acts as a mulch. They improve with artificial manures and many like a little lime. Losses have been remarkably few although children and dogs cross the area. It is a windy spot but plants are staked or propped with rocks and pruned hard if they threaten to become 'leggy!'. I have accumulated a small nursery of cutting and seed-grown replacements, and have had many delightful gifts of plants from kind friends and nurserymen. Some of the grey-foliaged eucalypts have made excellent growth as well as certain of the wattles. One disappointment is Howitt's Wattle from our near hills - its members look most unhappy here. To compensate for that is the healthy appearance of Banksia serrata, which was always unhappy on my former wet river flats. Some 300 trees and shrubs are prospering and recent life-giving rains have been most welcome.

--- E.L. ---

MORE ON BIRD-BANDING by Mr. Frank Jones:

The role of the bird-banders is to find out how the birds live, what their requirements are, and to find ways in which the birdlife of this country can be maintained. Despite the interest and satisfaction that can be gained by working out our own theories, the extent to which the individual bird-bander can achieve these aims is limited, so that it is necessary that the details of all birds banded be forwarded to the controlling organization. Due to the vast amount of material available to them most of the new evidence pertaining to bird-life will be compiled by the C.S.I.R.O. Division of Wildlife Research, but this fact in no way detracts from the gratification of finding out whether our old ideas were right or wrong, or the fascination of discovering new things.

In the past seven months in the course of my mist-netting activities and the banding of nestlings, I have to this date banded exactly one thousand birds of 43 species, and of these 76 have been retraps either from my own banding or from banding done by members of VORG during their visit at the end of October 1964. All retrapped birds have been recaptured in the areas in which they were banded.

One important aspect of bird study is to learn as much as possible of the reactions of the birds to interference in order to know to what extent and under what conditions they can be handled and examined.

As different birds react differently, only experience can determine the best methods of operation. Most birds upon being released behave normally and fly to the nearest branch, and show very little concern, while some take a keen interest in the band and try to peck it off.

The tolerance of some birds is remarkable, as in the case of the Eastern Shrike-tit, a pair of which had a nest nearby to where I had placed a mist-net over a pool of water. As this was the only water available near at hand, the Shrike-tits eventually came down together to drink, and upon seeing them both get caught, and removing them from the mist-net straight away, I observed that the female was in the condition to lay the eggs within the next two or three days, so I banded and released her with some misgivings that I had caught her at this critical time. I wondered what the birds would do, but although the next two days were very windy, and the bird would have to remain on the nest continuously to prevent the eggs from being thrown out, I observed when the weather calmed down that the bird was sitting nonchalantly in its beautiful nest high in the slender sapling.

In contrast some birds suffer severe shock when caught. Some Honeyeaters lose many of their feathers, but show no other ill effects, whereas the Wonga Pigeon is reputed to be unable to fly for some time after being caught.

As far as it has been possible to find out no birds suffer any after effects from being banded. In my present banding programme, Blue Wren No. 01115558, and White-browed Scrub-wren No. 02084623 have been re-trapped three times after being banded by VORC banders thirteen months ago, while a Yellow-faced Honeyeater No. 02081745, banded on the 31st. of October 1964 was re-trapped on the 26th. of September and again on the 25th. of November of this year. Whether this bird had migrated northward in between times as this species are supposed to do it is impossible to say.

Yellow-winged Honeyeaters, Eastern Spinebills, Yellow Robins and Yellow-tufted Honeyeaters have been re-trapped in fair numbers; and a few Red-browed Finches and Crescent Honeyeaters; two each of the Grey Thrush, Silvereye and Olive Whistler, and a solitary Lewin Honeyeater No. 03089641; the only one I have seen at any of my banding sites insisted on being caught twice.

Evidence of the movements of the nomadic birds is very sketchy. Flocks of White-naped Honeyeaters appeared at my regular mist-netting site near Cowarr in June before the Red Box (a flowering tree in this area at the time) had begun to flower, and left in September before the Red Box had finished, and although 95 of these birds were banded in this area during the period, none were re-trapped, which indicates that they were travelling flocks perhaps dispersing as they went to breeding territories far and wide.

In September I heard of a colony of Yellow-tufted Honeyeaters on the Tyers River, and as Yellow tufts are something of an enigma in Gippsland, I decided to band some of these and try to discover why they

should exist in colonies in Southern Victoria and yet be wandering honey followers throughout the rest of their range. At the Tyers location I banded 41 Yellow-tufts and very few other birds, and as I retrapped seven Yellow-tufts and found several of their nests it was clear that here was a stationary nesting colony. More recent reports suggest that these birds may be more widespread than was realized, or is it that at this time of the year the young ones spread out from the parent groups and are therefore seen in many more places ?

The short period that we have been banding birds allows us no opportunity to assess the seasonal conditions as compared with other years. Is it that drought conditions in other areas are causing unusual numbers and kinds of birds to come to this region, or is it that as our interest quickens we become aware of birds that we have previously overlooked ?

--- Frank Jones ---

WITTS TRACK RESERVOIR AND RESERVE -- HAUNTED HILLS by R. Stephens:

The attention of members is drawn to a readily accessible area quite close to Yallourn which is worthy of exploration by the naturalist and even perhaps of an organised excursion. A sketch on Appendix 1 shows, with the necessary information, motor tracks, walking tracks and other points.

About October 31st. 1965, our Excursion Secretary noticed a pair of Blue-winged Parrots on Crowes Track, and quickly realised that they were outside their normal habitat, not having been reported in this area before. To check whether they were really in residence or merely on 'walk-about', another visit was made on Sunday November 14th. and the parrots were again observed at quite close range. These were among seventeen varieties of birds which were identified and members are recommended to make their own observations and report to the monthly Meeting, or the Editor of the Newsletter.

Subjects for our flora experts include tree ferns (see sketch), and other ferns in the gullies leading to the Reservoir. It is quite likely that there are many other items of interest which possibly evaded our notice. Next years programme of excursions is now under consideration, and it is possible that this area may be included. However, do not wait for this as you may not be available on the particular day. Make your observations soon and go in again in the autumn or spring and see if your birds are still there.

Sorry -- I almost overlooked sightings of the Echidna, Wallaby, and a species of duck on the Reservoir.

I regret now having to introduce a note of sadness which may hasten your decision to visit the area. It is understood that the land clearing which is now taking place on the western side of McDonald's Track

will soon extend down to within a short distance of the Reservoir, and will ultimately leave an elongated reserve encompassing the Reservoir and covering 127 acres. The necessity to remove a possible fire hazard that could endanger vast brown coal deposits upon which the welfare of so many people and so much industry depends, is acknowledged, but it would be nice if a slightly larger portion of this lovely gully could be left to nature such that the feeding grounds of the birds could be left large enough to retain these feathered beauties in the area.

--- R. Stephens ---

AN ADDENDUM TO THE ARTICLE BY MR. STEPHENS by Miss N. Rossiter:

On November 27th. the small Grass Parrots referred to by Mr. Stephens were again observed on Crowes Track. Six were seen together, and it was thought that there were considerably more than this number in the vicinity.

Nearly always when first sighted they have been feeding on the ground, and will allow the watcher to come within about 20 yards before they fly off, usually into a nearby tree, where apparently feeling secure, they permit a closer approach.

One was observed with field glasses while perched on a dead tree and obligingly showed front, back and side views. This parrot had a green back and head, a small dark patch on the forehead, blue along the edge of the wing and in the tail, yellow underneath with a bright orange patch on the lower abdomen.

A second bird closely studied, had a much larger blue patch on the shoulder of the wing, and appeared generally greener with no orange patch. It seems fairly certain that the latter bird is the blue-winged Parrot, but it is not certain whether the first is an orange-breasted Parrot described in Cayley as becoming extremely rare, or simply the blue-winged Parrot seen in a brighter light.

Neither of these parrots is recorded as having been seen in this area before as far as is known. As it is probable that they are nesting in the vicinity of Crowes Track, it is hoped that a nest may be located and further observations of these small attractive visitors made.

--- Nancy Rossiter ---



Scale: 1" = $\frac{1}{4}$ mile
Roughly traced - 3/12/65

LATROBE VALLEY FIELD NATURALISTS' CLUB.

Club Aims:

To promote an interest in native plants, birds and animals, geology and marine life, and to assist in the establishment of nature reserves. To protect, so that we and others may enjoy.

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General Meetings:

Are held on the fourth Wednesday of each month at the Morwell High School, starting at 7.30 p.m.. A talk, usually by a specialist in some branch of natural history and illustrated by slides or movies and/or specimens, follows the short business part of the Meeting.

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Excursions or Field Days:

Regular field days are conducted on the Saturday following the General Meeting. A programme of meetings and excursions arranged up to February 1966 may be obtained from the Secretary.

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Annual Subscriptions:

10/- for a single person, 1/- for juniors, and 15/- for a family. Subscriptions may be paid to the Secretary or the Treasurer, Mr. E. McElroy.

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If you desire further information regarding the activities of the Club, you are invited to get in touch with any of the following:-

<u>Moe:</u>	Mr. E.H. Homann, 84 Hennessey Street.
<u>Morwell:</u>	Mr. J.M. Peterson, 14 Barry Street.
<u>Traralgon:</u>	Mr. K.G. Eldridge, 39 Lafayette Street.
<u>Yallourn:</u>	Mr. G.T. Scanlan, c/o L.V.C. Hospital.

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Contributions to this Newsletter:

Contributions relevant to the interests of members and the aims of the Club are invited and should be addressed to the Editor, G.T. Scanlan, c/o L.V.C. Hospital, or handed to the Secretary.

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PROTECT

AND

ENJOY



LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

Editor: G.T. Scanlan, c/o L.V.C. Hospital, Yallourn, Victoria.

EDITORIAL:

Dear Fellow Field Naturalists,

This first issue of the Newsletter for 1966 is also the 26th. since publication was commenced in October 1963. The first issue consisted of two foolscap pages - its object was to provide members with an outline of the business conducted at meetings of the Executive Committee (and so reduce the 'business time' at General Meetings), and to keep members informed of forthcoming Club activities.

This was a modest beginning, but it is considered that the Newsletter has grown in stature to a monthly publication providing, in addition to the original objects, a great deal of valuable information on a variety of aspects of natural history. For this improvement, and for the contents of the Newsletters, members are indebted to a comparatively few, competent, regular contributors. These members have given of their knowledge, experience and time to instruct, encourage, and entertain their fellow members.

It is hoped that the regular contributors will continue their efforts - in fact, continued publication of the Newsletter is dependent upon them doing so - but it is also hoped that other members will overcome an apparent reluctance to write and submit articles arising out of their observations and experiences.

As the contents of the Newsletters have improved, so has the outer cover. This issue has a new cover - the distinctive and attractive design is the work of Mrs. K. Jakobsons, an active member of the Club, and a sincere and capable artist. She is also the designer of the F.N.C. Car Sticker, and prepared a number of designs before presenting that which now adorns the cover. We are proud of it and grateful to her !

The motif of the cover design is, of course, the Flying Duck Orchid (*Calleana major*), which has come to be regarded as the floral emblem of this Club. The native orchids all have some particular attraction, and the Flying Duck Orchid is aptly named in that it bears a striking resemblance to a duck in flight. Whilst this plant is widespread, it is not numerous, and is but one of the many other species of native flora which we must endeavour to protect and preserve.

It is intended, as soon as possible, to make application for registration of the Newsletter for transmission by post as a periodical, with the object of improving the method of distribution to members, and cutting the cost of postages.

The Excursion on Saturday 22nd. January:

Miss Nancy Rossiter, Excursion Secretary, has advised that arrangements for the excursion, which has been referred to as to the Benison Plains, are as follows:-

Leader: Mr. Graham Marshall, of Traralgon.

Subject: The Plains and Mountain Flora.

Place of Meeting: At Licola, alongside the River south of the Licola Bridge.

Time of Meeting: 10 a.m..

Members who desire transport should make their usual contacts in good time before the day of the excursion.

Some suggestions for the Excursion by the Editor:

1. As fires will almost certainly be banned, it will be necessary to take prepared food, enough for a full day, and tea or coffee in a thermos.
2. The cars face a long steep climb to about 5,000', and as the weather will probably be hot, it will be advisable to carry a container of water for the purpose of topping up the radiator.
3. Heyfield is the last reliable source of petrol on the outward journey, and it would be wise to fill the petrol tank before leaving this out-post.
4. The road beyond Licola is gravelly and dusty, and it will be more comfortable to travel with some little distance between cars. However, members should follow the practice of keeping the following car in the rear vision-mirror from time to time. Drive carefully !
5. Do not divert from the main forestry road in a spirit of curiosity. Where the track signs state 'Jeep Track Only' the tracks are only suitable for four-wheeled drive vehicles.
6. There are snakes in the mountains, especially near water ! Usually they will be as frightened of us as we of them, but will act defensively if cornered or stepped on. Care is needed in walking where conditions suggest it to be advisable.
7. An unnecessary admonition ? Do not pick native flowers or despoil native plants. Many are legally protected - all are to be protected by sincere field naturalists.

The High Plains Country-by the Editor:

It would probably be more accurate to refer to the forthcoming excursion as being directed to the 'High Plains' country of the Macalister River watershed as, in the course of the journey members will traverse the forested Bennison Plain, The Lost Plain, Carey Plain, Doolan Plain, and skirt the edges of both the Snowy and Wellington Plains.

Within a few days of two years ago - on the 25th. of January 1964 - the Club had a field day to the Bennison Plain in the vicinity of Chester Hut, just beyond Tamboritha Saddle, and close by Mount Tamboritha.

Under the leadership of Miss Jean Galbraith, this was a most successful outing, 110 plants being identified on the Plains, and a wealth of rich flora seen along the hillsides of the mountain roads. Although the country is now drier than it was at about the same time in 1964, there will still be much of interest to be seen, including many spectacular views.

It is regretted that Miss Galbraith, who is so well acquainted with the area, will not be available to lead the excursion, but we will be fortunate in that Mr Graham Marshall, a keen and knowledgeable naturalist, has agreed to lead and help members to locate and identify the native flowers and plants and, it is hoped, some of the bird life of which there is an abundance in the forested areas.

Originally it was intended that the limit of the excursion should be in the vicinity of McFarlane Hut, at about 36 miles from Licola. This is at the junction of the old tracks, one of which leads eastward over Trapyard Hill into the Moroka Valley, and the other southward past the Spion Kop Range and Tali Karng to the 'Sentinel' and 'Gable End'. However, following a visit to the area by the writer on Sunday the 2nd. of January, it is now suggested that, after a reconnaissance of Bennison and Carey Plain, and perhaps a glimpse at the flora to be seen at the edge of the Wellington Plain, members might proceed a few miles farther along the Moroka Road, round Trapyard Hill and beyond to where the mountain flora seemed to be more prolific and colourful.

For the benefit of those probably few members who might not be acquainted with the route to the Plains and the country it is intended to visit, the following notes may be of some interest. From Yallourn to Heyfield, by way of Tyers and Cowarr, is 35 miles, and another 6 miles on to Glenmaggie. Here a crossing is made by the bridge over the Glenmaggie Creek, which at this point is now part of the Reservoir, and the road then immediately begins to climb into the hills with the valley of the Macalister River on the east. A little more than two miles along the road from Glenmaggie is a point appropriately named 'Mountain View'. This is the first of many spectacular views to be seen during the day. Seemingly far below winds the Macalister River in its valley and, ranging from close by to the far distance a number of comparatively low but picturesque mountains, including Mounts Bradley, Bulldog, Hedrick, Margaret and Ben Cruachan.

The climbing is alternated with descents into the valley of the Macalister, and the route follows fairly closely that of the river until at a little beyond Cheyne's Bridge and Turpin's Flat the stream takes a sweep around a cluster of hills for several miles, coming into sight again from the high look-out past Burgoyne's Gap. From there it is again closely followed by the road until about two miles from Licola on the Tamboritha Road, where the road deserts the Macalister and follows its main tributary, the Wellington River. The Macalister has its head on the Great Dividing Range, at about 12 miles southward from Mt. Buller, while the Wellington has its beginning on the slopes of Mt. Wellington and the ranges of which it is a part.

Licola is about 68 miles from Yallourn, which means that about two hours should be allowed for the drive to the meeting place. The road so far is first class, and may have spoilt the travellers for what lies ahead. However, the gravel road from Licola onwards is quite good although, as the gravel is loose on the roadway for much of the way, it calls for careful driving.

From Licola the road runs north for about 10 miles along the Wellington River Valley, when it turns in a generally north-easterly direction, thence easterly. Climbing has commenced now, and at Bennison Spur lookout, 20 miles from Licola, the road is at 3375' above sea level. The Tamboritha Saddle, 3 miles further on is 4275', and the Lost Plain sign records a height of 4860'. At about 29 miles from Licola is a junction of the roads, one leading north about 25 miles to the vicinity of Mt. Howitt at the head of the Wonnangatta Valley, and the other, the Moroka Road, and the one which the party will continue to follow, goes on past McFarlane Hut, round Trapyard Hill into the Moroka Valley to a point 54 miles from Licola.

There is a great deal of beauty to be seen along and from the road and, unfortunately, much that is ugly. Much of the ugliness is probably inevitable, and is associated with the extensive timber-cutting that has been going on for some years and is continuing; fires, man-made and other; and the building of roads that must first be made to enable access to the timber areas. Many of the hillsides and gullies are despoiled by the untidy litter of departed timber-getters - dead, blackened stems of trees stand stark or lie prone; many of the high hills are almost denuded of trees and other plants and erosion is evident; the roadsides are untidy with heaped bulldozed trees and their remnants, and rocks and soil. Perhaps these practices cannot be avoided, but they take a heavy toll of the native plants, destroy the habitat of the birds and other native fauna, and accelerate the natural forces of erosion. In the course of time, by way of some consolation, nature itself will provide a regrowth of trees and plants to eventually cover and hide the present unsightly scars.

Some good comes of all this of course - the country will become more easily accessible to nature-lovers, as has already happened. Very little more remains of road cutting to enable a round trip to be made from the Heyfield-Licola side, across the plains and hills to the track down to Valencia Creek, Boisdale and Maffra - which should be an unforgettable journey to make at any time of the year !

Geologically, the area to be visited is included in the belt extending from Lindenow to Mansfield of Upper Devonian and Lower Carboniferous strata, consisting of volcanic rocks towards the base overlain by sandstones and conglomerates. These sedimentary rocks were deposited in fresh water and are of similar age to the Grampian sandstones.

As a matter of further interest, the country is a favourite of serious bushwalkers, with particular emphasis on Lake Tali Karng, the landslide valley-blocked lake at about 3000' near Mt. Wellington. Tali Karng is reached at about 7 miles from McFarlane Hut, by a rugged, sand-

stone boulder strewn track, and only the foolhardy (which includes the writer) would attempt it by conventional motor car. Only a four-wheeled drive vehicle should be taken along here.

There were many walkers (unwitting as well as deliberate) headed along the track on the recent Sunday. The wise had left their vehicles at the turn-off, while others had been forced to temporarily abandon theirs along the track. The experienced, serious bushwalker could be identified with pack aback, taking the walk easily with frequent stops to rest beneath the shade of the white-blossoming snow gums, taking plenty of time to enjoy the many pleasant views. The writer's goal was 'Picture Point' at the northern end of the Spion Kop Range, from which the views, in a complete 360° panorama were magnificent, and well worth the trudge, the climb, and even suffering the numerous flies !

To conclude what were intended to be a few brief notes, reference should be made to the fact that, inaccessible as this country has been until very recent times, and as rugged as much of it still is, it was extensively botanically explored by Dr. (later Baron) Ferdinand von Mueller over a century ago. This indefatigable botanist, travelling on horse back with pack-horse, and often alone, covered vast areas of difficult country, collecting and recording. During the course of a long, circuitous journey in the latter part of 1854 he climbed Mt. Wellington, and, on the 1st. of January 1855 ascended Mt. Kosciusko. Our journey on the 22nd. of January will not be so arduous !

--- G.T.S. ---

A Visit to the Atherton Tablelands - Queensland, by Mr. W.S. Parsons:

During our journey to the Tablelands many changes of scenery took place, and one that was eye-catching was a lagoon covered with the tropical blue Water Lily, and wading around the edge were Swamp Hens, while resting on the tanks were numerous groups of the Native Companion. Other lagoons had bright pink Water Lilies, and in one we saw the notorious Water Hyacinths covered with its beautiful lilac coloured flowers. Around these lagoons we saw Banded Plover, Stone Curlew, White-faced Heron, and the Painted Snipe.

Most of the country that is not suitable for cane growing is devoted to cattle raising, and there are miles of sparsely growing timber of what the locals call Black Butt. This is a gum with the trunk black part way up with changes to white for the rest of the tree. There are gum trees where the whole of the trunk is pure white with light green leaves. Interspersed through these gums are the Ironbarks with their black rough corrugated bark.

This type of timber changes periodically to areas of Popular Gum (*Homalanthus populifolius*), which has a whitish trunk topped with very

pale lettuce-green leaves. Here and there were groups of Black Boys, and in places the mounds of colonies of the white termites.

Passing through the Shire of Ayr we were surprised to see pumps lifting water out in large volume for miles along the road. Water is found from 15' to 25' below the surface and in unlimited quantities. This is used to irrigate the sugar cane fields. Here we crossed the Burdekin River, which is half a mile wide and a raging torrent in the wet season, but during most of the year is dry, as the water flows under the sand to the sea.

Leaving Innisfail, the road climbs over 2000' to the Tableland, and here we saw several National Parks which reserve the original jungle. Most of the area is of red soil, and this makes one think of volcanoes. Two outstanding features are Lakes Barrine and Eacham, which

are extinct volcanoes, and the water is 300' deep and of a deep blue colour. Crater Lake is an unsolved mystery, because it is not of volcanic origin as its sides are rough and of granite, 185' vertically, and the water 285' deep, the lake itself being 3250' above sea level. Round its edges grow trees of various types, with orchids and ferns growing in the branches.

Along a track through jungle we saw many types of trees such as Silky Oak, Red Tulip Oak, Spearwood, which is very hard; Silkwood, which is very soft and smooth when dressed; Silver Ash; Queensland Maple; Flame Tree with its red-cupped flowers, and a tree called Black Pine, which has berries that were used by natives to stupefy fish in streams.

It was here too that we saw the strangling Fig which climbs up a tree and gradually grows around it, stopping the tree's growth, and thus killing the tree, which rots away and leaves the fig standing in its place.

The Scrub Hen and wild Turkey were seen and later several of the nesting mounds were seen. One was 10' high, and at least 80' in circumference. Each year the eggs are laid and fresh leaves scratched up on to the top of the mound to create the heat necessary to hatch the eggs. One of the most eerie experiences was to hear the call of the Cat Bird, which was similar to the sound of two cats meeting at night for a sparring session. Many coloured parrots seen included the Scaly-breasted Lorikeet, the White Cockatoo and the King Parrot.

A beautiful sight was an Azure Kingfisher in flight, and we felt at home to hear the laughing Kookaburra during the day. The Black and White Fantail (our Willy Wagtail) was a familiar sight, as were many types of Tits, Whistlers etc.. The Whip Bird was heard in the jungle, as well as the many varied calls of the Lyre Bird. The jungle is full of life, and although we did not see any live snakes, there were Taipans, Pythons, and harmless tree snakes in evidence. Tomatoes abound in the lakes and will rise to be fed.

The jungle is impenetrable without scrub knives as it is laced together treacherous Lawyer Vine, Blood Vine, Water Vine and other creepers. The Lawyer Vine catches one in its hooks, and it is nearly impossible to get out of its clutches. This vine when it grows larger loses the hooks and becomes the Malacca Cane of commerce. Another nasty species is the Stinging Tree, whose leaves are like those of the ordinary nettle. The sting does not take effect until water is placed on the skin, when it may sting for hours.

Interspersed amongst the native timber are Palms of many types such as Pandanus, Bamboo Palm, Zamma Palms, and Black Palms. The leaves of the Candlelight Vine are of the shape of a candle with the wick alight. The Black Palm gets its name from the colour of the centre of the trunk which was used by natives to make their weapons because, when the wood dried, it became very hard and tough. Many types of Philodendrons were seen climbing through the jungle, and ferns in profusion.

Coming down from the Tablelands we passed through the new town of Mareeba which has grown through the cultivation of tobacco. Wonderful views of Cairns were seen from vantage points on the road down the mountains. At one stop we saw a Fig Tree (Ficus), with the bunches of apple-like fruits growing all over the trunk and branches -- they do not grow like normal fruit on a tree.

Entering Cairns ground Orchids can be seen growing in the home gardens, and are often used as front hedges. The flowers are purple to mauve in colour, and quite large spikes of blooms grow on individual plants.

And a visit to Green Island:

After coming down from the Tablelands to Cairns we passed across the flat country, and in many places passed across tidal areas covered with Mangroves. The tree roots are deep in the mud, but when the tide goes out the black roots are exposed that support the tops of the trees. These roots stick up out of the mud for anything up to 6', and above them are the bright green of leaves and branches.

Green Island is 17 miles by sea from Cairns, and is a coral atoll, only 30 acres in extent, and only a few feet above sea level, composed of white sand from decomposed coral. There is a good cover of trees including White Cedar, Casuarinas, and Pandanus Palms interspersed with Coconut Palms.

Travelling to the Island we saw the unusual sight of large Garfish water-skiing on their tails to escape being caught and eaten by larger fish such as Mackerel. The coral around Green Island is within 3' of the surface, and down as deep as 60'. The shapes and colours of the coral have to be seen to be believed. Coral is to be found in all the colours of the spectrum -- this through the different types of coral having different types of polyps (the animal that builds the coral), and the microscopic plants that live on the corals, which give colours ranging from fawn, ochre, brown to green, yellow, pink, lilac, mauve, purple, blue and the rare black coral.

All coral loses its colour when taken out of the water, as the animal and plant life die. The coloured coral sold to the tourist does give a true picture of the coral as seen under the water. Large Clams and many varied shaped and coloured fish are seen amongst the coral -- some of the fish are round and fat, others long and fat, some quite plump, some with long fins trailing in the water at their rear, but all are brilliantly coloured, many with stripes of another colour around their bodies.

The most unusual fish seen was the Amphiprion, which can swim

with impunity through the tentacles of the large Sea Anemone, whereas other fish would be stung by the nettle cells on the tentacles, grasped and eaten by the Anemone. There has been built, alongside the jetty near the Island, an underwater observatory, where the myriads of coloured fish can be photographed and watched as they swim amongst the corals. Green Island is a National Park, and therefore coral and shells cannot be removed from the area. Shells of all types are on display on the island, but they are hard to see amongst the coral, as they have a living animal inside them, and are well camouflaged for protection against their enemies.

--- W.S. Parsons ---

AUGUST MORNING SYMPHONY.

Hear the Spinebill's intermittent calling
Then the Grey Thrush sounds a glorious note
Now a Magpie flutes soprano glory
While laughter bubbles from a Kooka's throat.

Speckled Warbler's spill a dainty twitter
Thornbills scatter tiny silver sounds
Creaky Gang-Gangs talk among the pine-trees
A Red-breast Robin lights on frost-crisp ground.

Yellow Robin voices a bush joy-call
To coming dawn as radiance is shed
Upon the silver trees and cold of morning
Mists like a veil before the glory spread.

-- Frances Gladstone. --

(Note by Mrs. Lyndon;- "Mrs. Gladstone is a keen and knowledgable naturalist, and a great lover of the bush around her native Beechworth. Under her guidance our stay in that district is something to remember with great pleasure. I have her kind permission to submit the lines above).

A Word about Gellion's Run: by Mrs. Ellen Lyndon.

I had intended to speak, at the November Meeting, on the same subject brought up by our Hedley member, Mr. Rossiter, but time did not permit. Mr. Rossiter's paper concerned the proposed development, by Alberton Shire Council, of 6000 acres of natural bushland near Hedley, extending from the South Gippsland Highway to the sea. This is the Gelliondale coalfield, used as a common for grazing stock for many years past. The S.E.C. does not need to develop this coal at present and the

Shire, with the sanction of the Lands Department, proposes to divide the land into not less than 200 acre blocks and lease them for something like 25 years. This will mean clearing them and grassing them down.

Local conservationists feel that some sections of this land should be left in the natural state to provide living room for the flora and fauna that is still largely undisturbed there. It is a notable wild-flower and orchid habitat. There are many swampy areas and sand hills, and little is yet known about the smaller animal life that lives there. We are asking the Shire to spare some of the blocks and leave them as they are to provide continued habitat for the wild things. It need not be the best land, agriculturally speaking. The Shire is proud of its small but splendid fern-gully National Parks. We would like to see them retain some of the coastal plain country on Gellion's Run, even if it is only for 25 years. Students of natural history will undoubtedly find much to interest them there in the years to come.

I passed that way on November the 20th, and stopped the car to look more closely at a magnificent stand of flowering grass-trees. This miniature forest of tall creamy spikes ran for the best part of a mile close beside the highway and was up to a quarter of a mile in width. A fierce fire the year before had caused every plant to send up a flower spike. Some were up to fifteen feet in height, the mass of tiny flowers occupying the top nine feet of the stem. Others ranged in size down to slender dwarfs. Some were kinked and twisted along the ground and here and there was a specimen with a looped spike. These looked as if the flowering part had split and then united perfectly again at the top. One plant had produced a strong tall stem with seven miniature spikes sprouted from the same base.

Save for an occasional gum-tree the stand was quite pure. The lesser herbage was only just making its appearance from the blackened sand, and showing a little blue of dampiera or a spray of flowering manuka. Bees buzzed everywhere and honeyeaters had come for the feast. Red Wattledbirds squabbled noisily and pursued each other through the maze. Spinebills clung to the spikes, but Yellow-winged and Yellow-faced Honeyeaters hovered while they fed, wafting themselves up and down the stems. Both birds and bees appeared slightly intoxicated.

The bare earth was littered with fallen gum leaves, each leaf perfect but skeletonised and lace-like. Broken flower-spikes that had been knocked down by cattle or visitors were being eaten by rather repulsive looking brown grubs, a sample of which has been sent away for identification.

This floral would have been worth looking at until nearly Christmas, and was well worth a visit by any nature-lover. The site is a couple of miles past Hedley on the corner of Pearson's Road, which runs through part of Gellion's Run.

Bairnsdale Field Naturalists' Club Long Weekend at Hotham:

Mr. Barton, Secretary of the Bairnsdale F.N.C. has written to Excursion Secretary, Miss Rossiter, as follows:-

"Thank you for your letter of December 29th. re Bennison Plains excursion. We were very interested in this, but at the moment I don't know whether any starters would be available. It is our normal excursion weekend, so I will try and get there.

The following weekend (Jany. 29th/30th- 1st. Feby) our Club has hired the East Gippsland Ski Lodge at Mt. Hotham, going up Saturday and staying the two nights. Would any of your people be interested in attending? There would be accommodation for about 12 of you if so.

A member of the Ski Club will be present to look after the house arrangements, and the charges would be £1 per head per night. Tea, coffee, sugar, condiments and jam are supplied by the Club and canned foods and soft drinks are available for purchase.

A quote from the Ski Club letter;- "There are about 14 bunks with suitable mattresses and pillows, and one camp stretcher. For in excess of that number there is sleeping accommodation in our loft on the floor on mattresses for about another half a dozen or more hardy souls. There are, of course, two or three couches".

Hoping some of your folk may be interested as a most attractive area for wildflowers etc.. "

(If any members are interested in this attractive offer by the Bairnsdale F.N.C. it is suggested that they contact Mr. E.V. Barton, 13 Turnbull Street, Bairnsdale, direct, or ring him at telephone 3333 (day) or 3792 (night) Ed.)

February Excursion to Phillip Island by Bus:

A reminder to hand your names into the Excursion Secretary as early as possible to enable arrangements to be made for this trip.



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LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

LATROBE VALLEY FIELD NATURALISTS' CLUB.

NEWSLETTER FEBRUARY 1966.

Issue No. 27.

Editor: G.T. Scanlan, c/o L.V.C. Hospital, Yallourn, Victoria.

Dear Fellow Field Naturalists,

The Assistant Excursion Secretary, Mrs. Lorna Padfield, has provided the following details regarding the forthcoming excursion to Phillip Island.

Date of Excursion: Saturday 26th. February 1966.

Place: To Phillip Island.

Leader: Mr. Frank Jones.

Transport Arrangements: The Bus will leave the Morwell Post Office at 1 p.m., travelling first to Yallourn to pick up passengers at the Yallourn Post Office, thence on to the Moe Post Office.

The route will be by way of Drouin to Lang Lang and on to the South Gippsland Highway.

General: It is hoped to arrive at the Nobbies in time for afternoon tea, to be followed by some exploration, including a visit to the 'Blow-hole', and then to go on to the Penguin Reserve for tea.

The bus will leave on the return journey after the Penguin Parade, probably around 8 p.m..

Booking: It is essential that bookings be made not later than the 21st. of February, as it will be necessary to offer spare seats to non-members in order to cover the cost of the bus. Please contact Mrs. Padfield at the following address as soon as possible, with fares in advance if convenient.

Mrs. L. Padfield,
42 Strzeleckie Road,
Yallourn. 'Phone Yal. 52581.

Fares Are:- Adults \$2-50.
 Children over 12. \$1-00.
 Children under 12. 50c.

Some Notes on the Excursion by the Editor:

The principal object of the excursion to Phillip Island is to observe the Penguins when these quaint birds come out of the sea, usually after the sun has set, to feed their young, and to spend what remains of the night in their sandy burrows.

In 'An Australian Bird Book' written by Dr. Leach and revised by Mr. Crosbie Morrison, the penguin is referred to as follows;- "Though other birds may be endowed with beauty of form and colour, or may be gifted

with melodious voices, no other birds have the universal appeal of the penguins. Their erect posture when on land, their white 'shirt-fronts', their gregarious habits, and their lugubrious waddling, make them a perfect travesty of the human race ..."

The species at Phillip Island is the Little or Fairy Penguin (*Eudyptula minor*). Its attractive colouring includes light-blue on the upper parts, with a glistening white on the under parts. The female lays one to two white eggs, and the nest is a burrow, usually above the beach. It is probably unnecessary to state that the penguin cannot fly—its element is the sea, and its wings have been adapted to assist in swimming, being more in the form of flippers than wings. It is a visitor to the southern and eastern shores of Australia from Fremantle to southern Queensland from Spring to autumn each year.

Among other interesting native fauna on or in the vicinity of Phillip Island are the Mutton-Birds (Shearwaters), whose rookery on Cape Woolamai is a noted attraction; a colony of Seals on Seal Rocks at the western end of the Island; and the Koalas.

Whereas the penguin has adapted itself to the water and as a consequence has developed wings that serve as flippers, the mutton-birds, for the purpose of long sustained flights, have developed strong, wide wings at the expense of their legs. They need an eminence such as a cliff or the crest of a wave to enable them to take to the air. Like the penguin, the mutton-birds nest in burrows and the young, when fully fledged, come from the nests and waddle to the edge of a cliff and take off into the wind. The most common of the mutton-birds in Bass Strait is the Short-tailed Shearwater (*Puffinus tenuirostris*).

Flora: While there is much of interest in the way of native flora to be seen, a great deal of the trees and plants have been ruthlessly removed by farmers and the destructive land-subdividers. There were formerly much more extensive areas of Swamp Paper Bark (*Melaleuca ericifolia*) and Drooping She-oak (*Casuarina stricta*) and other native plants and trees than are to be seen now.

Historical and Geographical: Looking at a map it will be seen that Phillip Island fronts Western Port Bay towards the sea and forms the two entrances, a western and eastern, into the bay. In the middle of Western Port Bay is French Island with its Mount Wellington. Western Port Bay was discovered by Surgeon George Bass in January 1798 in the course of a long journey from Port Jackson in a whale boat, with a small party. Bass spent 13 days exploring the bay, mapping much of the coastline of the mainland and of the two large islands. A cairn at Rhyll marks a well sunk during the short stay of Bass, from which it is believed water is still drawn. At Rhyll on Phillip Island also was the first official settlement in Victoria. Captains Wetherall and Wright with a party landed here and established a fort and a settlement towards the end of 1826. An inadequate supply of water however, forced them to transfer to Settlement Point, on the mainland, opposite the south-eastern corner of French Island. The settlement was officially closed in 1828 for reasons of economy.

The western and main entrance to Western Port Bay lies between West Head on Mornington Peninsula and Grant Point on Phillip Island. It is about three and a half miles wide and safely navigable by vessels of deep draught. The eastern entrance however is narrow and shallow, and the tide runs through with great force, making it suitable and safe as an entrance for small vessels only.

Phillip Island is "... a crescent-tortoise-shaped island 12 miles long and $4\frac{1}{2}$ miles wide at the western and broadest part, the eastern end being a peninsula connected with the western part by an isthmus half a mile wide..." Cape Woolamai, a granitic mass at the extreme eastern end is the highest point on the island, and stands at 358' above sea level. As stated on page 2 it is of note as a mutton-bird rookery. At about half way along the southern coast is a high needle-shaped rock known as the Pyramid Rock, which is also of granite. Cape Woolamai has been united with Phillip Island by a long and narrow sandy bar, which has been built up on the basalt reefs which lay between the island and the granite mass which is the Cape.

Seal Rocks, on the extreme west coast of the island, edge the western entrance to the bay, and a dry area of this reef, comprising about 18 acres, forms a rookery for a colony of seals. Round Islet (the Knob-bies or Nobbies), lies about $\frac{3}{4}$ of a mile from Seal Rocks, and is connected to Phillip Island by a drying reef at Grant Point. Round Islet is of basalt and stands at 98'. On its summit is a trig. station, and between it and Grant Point is another islet of basalt about 20' high, covered in pig-face, which can be crossed on foot at up to a three-quarter tide. Grant Point is, of course, the site of the light tower and kiosk.

Parts of the coast of Phillip Island are fringed with dangerous reefs, some of which are uncovered at low water. Part of the southern coast is a deep bay, and consists of a low range of scrub-covered sandhills bordered by reefs. It is along this part of the coast of the island that we expect to see the penguins.

The large area occupied by Western Port Bay is known as a coast of submergence. When a coast of submergence is formed, as has happened here, land peaks which lay near the former coast were partly (some wholly) submerged and formed islands. Western Port Bay is a graben (literally a ditch), as is Port Phillip Bay, and each of these bays lies between two faults of some magnitude. In the case of Western Port Bay there is the Heath Hill Fault on the east and the Tyabb Fault on the west. Mornington Peninsula is a horst, separating the two bays. The depressed areas became flooded by the sea. The movements which brought in their train these and other submerged plains and land masses, including what is now Bass Strait, occurred at the end of the Pleistocene Period.

Penguins, mutton-birds, koalas, seals, native trees and plants, interesting rock formations and their story of the past, spectacular scenery - a few short hours and too short to see them all. However, our object is to see the penguins, and that experience alone will be well worth the journey !

A Correction:

The following note is from Mrs. E. Lyndon of Leongatha:- "Will you please make a correction for me. I usually check very thoroughly any historical facts, dates etc., when preparing an article, but in a hurry before Christmas, allowed one really bad mistake to pass. In the story of our week in Mildura district with the F.N.C.V. in the November issue, I made the startling statement that Sturt christened the Murray the Hume. As I hope every child knows, it was Hume and Hovell who bestowed the name Hume on this great river in 1824. Sturt came along in 1829 and called it the Murray River, by which name we know it today. My apologies to readers. E.L."

(Note by the Editor: The Editor is equally blameworthy in the matter of this oversight. Hume and Hovell came upon this the greatest of all Australian rivers near Albury on the 16th. November 1824 and named it the Hume. Its naming by Sturt as the Murray was inadvertent, as he did not realise that it had already been discovered and named by his predecessors - the name Murray River was retained.

Ironically, Hume accompanied Sturt on an exploratory journey in 1828 which preceded Sturt's epic voyage down the Murray to Lake Alexandria and the sea. Appropos our present interest in Western Port Bay and Phillip Island the journey of Hume and Hovell in 1824 ended at Corio Bay, on its north shore. Hovell however, had made a critical error in taking bearings, and the two explorers believed they had reached Western Port Bay. Their subsequent report to the authorities at Sydney influenced the choosing of Western Port Bay as the locality for the first settlement in Victoria in 1826. Ed.)

Meetings: Members are reminded that future meetings of the Club are to be held at the Yallourn Primary School. The February meeting, on the 25th. is to take the form of 'Holiday Reminiscences' by members, with coloured slides and a talk by several members. Photoflora 1966 on 25th. March has meant that the Annual General Meeting of the Club will probably be held on the prior Wednesday night - more of this in the next Newsletter. Members will be pleased to know that Mr. Norman Wakefield has agreed to talk to members on 'Mammals' at the April meeting. Among many other qualifications for the task Mr. Wakefield is the author of 'A Naturalist's Diary' in the Age of each Monday.

Birds: Mist-netting and Bird Photography: by Mr. Frank Jones.

Only one of the places that I have tried as bird-banding areas seems to be suitable for regular all the year round operations. This is at Stoney Creek via Cowarr, and I spend a week-end mist-netting there about every five weeks - my next week-end out there being the 12th. - 13th. of March. Success in the other areas tried depends on the time of the year, seasonal conditions and other factors. So my bird-banding programme consists of a regular visit to Stoney Creek, and trips to other areas when conditions indicate that it is worth-while.

When mist-netting for birds the selection of sites for nets is an interesting part of the proceedings. At most times I have had difficulty in catching reasonable numbers of birds in the thickly timbered hill country, but recently I have had some success by finding their drinking places in dry weather. In many of our fern gullies there are springs which provide water well away from the main creeks and rivers. A feature of these springs is that they rise up near the top end of the gullies providing fresh water there, but in many cases the bed of the gully is more porous lower down, so that the water seeps along underground for the rest of its journey to the main stream. Nets placed near these springs can be quite successful.

At my last place I was able to try out one such site and on the first day caught 49 birds by using only two nets. The catch included Lewin Honey-eaters, Shrike-tits, Rufous Fantails and Spotted Pardalotes. The following week-end during showery weather, when the birds could obtain water anywhere, the nets placed in the same positions yielded only four birds over two days. Having moved on to a new area I have several similar locations to try out while the weather remains dry. One advantage of bird-banding in these places is that the nets and other equipment are safe from human interference. I have always liked to explore the smaller creeks and gullies in the ranges, and during my walks along creek beds and dry water courses I have never met another person.

While I was erecting a net at one water-hole a pair of Spotted Pardalotes came down. However, thinking they had just come for a drink and being in a hurry to get my nets up, I did not watch them. Later, among other birds I caught and banded a female Pardalote at this spot. Later still I saw this bird with its mate again over the water. This time they carried food in their beaks and flew to their nest tunnel which was in fact in the bank about a foot above the water. Seeing an opportunity to combine some photography with my mist-netting I proceeded to set up my camera to focus on the entrance of the tunnel. Owing to the small size of the bird it was necessary to place my camera very close, and I had some doubts as to whether the birds would face up to a camera and flash unit at that range. Upon retiring under the tree-ferns to watch the reactions of the birds, I could see that they were a bit reluctant to go to the nest, but after a few approaches the male bird entered the hole, fed the young and emerged a few seconds later. Obviously pleased at having braved the danger and got away unhurt he flew jubilantly away through the ferns only to come up against a mist-net and be caught and banded. Now here was a nasty thought, both birds had been caught near the nest, and to enter the nest they had to go past a camera, would they desert? The best idea seemed to be to continue to watch closely, which I did, but although the female was caught again, and they were more cautious when going to the nest when the camera was in position, the feeding of the young was uninterrupted.

When photographing the birds it was found necessary to partly obstruct the entrance with a clod of dirt to cause the birds to pause at the right place. This meant the flash would frighten the bird away as it was about to go in, but it would immediately return and this time would be allowed to enter without any photo being taken. The camera, although placed right close to the nest, was operated from a distance of several yards by means of a shutter release tube. I found that the birds were in-

different to me as long as I did not get in their way, and I could lie under a tree-fern just across the pool in full view of the birds and take my photos. One advantage of doing bird photography in out of the way places is that one can be curled up on the ground for an hour or so without having to suffer the derogatory remarks of passers-by.

The object of banding birds at these places back in the hills is to gain more experience and to find ways in which more purpose can be given to our bird-banding programme, and also there is a possibility of retrapping some of the Honey-eaters we have banded in other places.

--- Frank Jones ---

And A Days Banding at Stoney Creek by Tony Moretti:

On Saturday the 12th. of February my father and I went out to see Mr. Frank Jones at Stoney Creek. He had been banding birds since early morning, so when we arrived he was out checking a net. We went round the nets with him and scored a blank, but as time went on we got a few birds.

After dinner we crossed the creek and walked to another part of the creek. I was astonished at the way it looked, as though we were entering a hidden ivy tower. As we made our way towards the creek, we heard various birds, and on reaching it we looked for some water to see if there were any birds about. We found a hole, but there were no birds, but we saw a fair sized rabbit. We feasted on blackberries which were plentiful. Walking along the creek bed we found a track which took us a shorter way back, and saw many signs of rabbits.

Arriving back at the camp we went around the nets, and in the last there were eleven birds - one so tangled that it took a quarter of an hour to release it from the net. In all we banded 51 birds in 10 species which included the following:-

Silvereyes, Blue Wrens, Yellow Robin, Goldfinch, Eastern Spoonbill, Red-browed Finch, Brown Thornbill, White-browed Scrub Wren, New Holland Honey-eater and the Golden Whistler.

In all this was a most interesting day for everyone.

--- Tony Moretti ---

A Stinkhorn Fungus: by Mrs. Ellen Lyndon:

This is one of those years when weather conditions favour the growth of certain fungi out of their normal growing seasons. Amanita muscaria, and the luminous Pleurotis, the Ghost fungus, have been reported near pine forests. On the Wellington High Plains, during the last week in December, we saw an unusual one, the Starfish Fungus, (Aseroe rubra) in a boggy patch beside the road at Surveyor's Creek. At first glance it suggested some exotic flower with brown centre and orange petals. The root or

base was surrounded by a clear jellied substance and in this an immature one was growing. It was a conical 'egg' encased in a papery-brown covering. This we collected and placed in a saucer of damp moss in order to observe the emerging process. By evening the enclosing sac showed several horizontal cracks round the middle. In the morning we found the lower half of the egg and its contents were gone and soon located the body on the grass under the table. Evidently it had expanded with some force.

The long thin-skinned hollow stem was of the texture and colour of the skin on the back of ones hand, flexible but firm enough to support the 'flower' parts above. Around the gaping hole that was the top of the stem lay a wide band of dark brown crusting matter with the most appalling and putrid smell. Radiating from this disc were six pairs of pointed curling orange arms. The flies flocked to feast upon this delicacy, carrying away the spore-laden slime on their feet and probosci, nature's way of ensuring spore dispersal. This is a fungus that dries well. Incidentally, the first specimen examined bore seven pairs of arms. This is the first time that I have seen this showy and unusual fungus, which favours the Alpine regions.

--- Ellen Lyndon ---

The Snowy Mountains and Mt. Koscuisko: by Mr. E. Homann:

(With the Field Naturalists' Club of Victoria)

The writer boarded the excursion bus in Moe and with some 40 other members of the F.N.C.V. on board headed for Orbost last Christmas Day. On Boxing Day, the route led through Cann River and, via the Kings Highway, passed through Bombala to Cooma. Next day a Snowy Mountains Authority Guide took charge of the party and then began the long trips to the major projects of the Snowy Scheme. These included a night at Island Bend, a second night at Khancoban, and a final night at Eucumbene.

This was an ideal way to see the dams and power-houses of the Scheme, and can be recommended any car driver prepared to take his car to Cooma where he may join one of the many organized parties. However, it was somewhat frustrating to field naturalists, particularly when the bus sailed quickly past a beautiful moss bog ablaze with colour from the flowering dwarf shrubs.

Perhaps the most common flowering plant along the mountain roads - below 5000 feet - was the Derwent Speedwell (*Veronica derwentia*), which, along the Alpine Way in particular formed a garden along the road. The Christmas Bush (*Prostanthera lasianthos*) too was flowering profusely particularly along Leather Barrel Creek where we had a delightful spot for lunch. Throughout the area roadside trees are named, though at normal travelling speeds these are somewhat difficult to read.

The Authority, as it needs be, is very conscious of the need to check erosion in the high country as many of its roads and engineering projects could start serious erosion. However, the members of the party

were interested in the efforts to stabilize road embankments and cuttings immediately the road was made, but there were many critics of the tree largely used for the purpose - the Basket Willow (*Salix rubia*).

On New Years Eve the party went on to the Charlotte Pass Chalet, where the afternoon was spent exploring the hillside above the Chalet. Here was a dwarf flora similar to that found in our local high country. *Richea Gunnii* was growing and flowering in great quantity, and the Alpine Mint-bush (*P. cuneata*) formed fascinating thickets a foot or two high. Against the flat face of a north facing boulder two shrubs - a *Richea* and a *Baekkea* - had each formed into a perfect fan-shaped espalier flat against the rock. New Years Day was spent visiting Mt. Kosciusko. It was a beautiful clear day, and the view over the mountains, particularly on the Victorian side was tremendous. Some of the hardy members of the party had decided to walk back some eight miles to the Chalet, others with more modest ambitions left the bus some two miles from the Chalet and spent the rest of the day exploring the fascinating country.

Occasional Snow Daisies and Silver Daisies were seen, but their main flowering season will be later. We were very interested in the nest of a Flame-breasted Robin, built in a bush no more than two feet from the ground. Sturdy youngsters kept the parent birds busy. The writer found a Ground Lark's nest the easy way. Usually a sitting bird on hearing the sound of approaching footsteps will run along the ground for a considerable distance before flying, and unless one is quick enough to see the start of this run, the nest is very difficult to find. However, walking across moss bog and stunted shrubbery is evidently a very quiet affair, and the author flushed a brooding bird from almost under his big boot. The nest and eggs were marvels of protective clouration.

The return journey was made via Corryong to Wangaratta, passing beside the Hume Weir. The Weir was swarming with bird life - most varieties of ducks, pelicans, swans, ibis, spoonbills in tremendous numbers. Members of the parrot family - galahs, cockatoos and grass parrots were seen in abundance.

After spending the night at Wangaratta our route next day was through hilly country to Whitfield and thence to Mansfield. A highlight on this section was a visit to Powers Lookout, a point overlooking the rich river flats below. Some of the party were fortunate here in seeing a lyre-bird in display on its dancing mound. Our trip continued on through Alexandra to Melbourne.

Mr. Dan McInnes, past-president, and Mr. E. Coghill, Secretary of our parent Club were members of the party, and expressed great interest in our activities, and asked me to pass on to our members their best wishes.

--- Ern Homann ---



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LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

Editor: G.T. Scanlan, g/o L.V.C. Hospital, Yallourn, Victoria.

Dear Fellow Field Naturalists,

Members will have noted that, because of the Photoflora Exhibition on Friday the 25th. of March, the usual meeting night has been changed to Wednesday the 23rd. of March, at the Yallourn State School. This will be the Annual General Meeting of members, and will commence at 8 p.m. As nominations for the vacant officers did not exceed the vacancies, an election will not be necessary. There should be adequate time after the reading of the President's Annual Report and any other business for members to express any views they might have for the improvement of the Club, and the implementation of its objects.

Nominations for offices were as follows:-

Senior Vice-President.	Mr. J. Peterson.
Junior Vice-Pres	Mr. G.T. Scanlan.
Secretary.	Mr. S. Belgraver.

Members are reminded that the annual subscriptions fall due and should be paid to the Secretary or Treasurer at the Annual General Meeting. They are 10/- for a single person, 15/- for a family, and 1/- for juniors.

Photoflora: The Photoflora Exhibition is to be held at the Morwell Town Hall on Friday the 25th. of March at 8 p.m.. It will take the form of a screening of coloured slides, with commentary, of Victorian Wildflowers, and is sponsored by the Native Plants Preservation Society of Victoria. Members who took tickets for sale are asked to take the money and/or unsold tickets along with them to the Annual General Meeting on the previous Wednesday.

Executive Meeting: The March meeting of the Executive was held at the home of Mr. & Mrs. Jim Peterson on Tuesday the 8th. of March. The following is a summary of the proceedings:-

Yallourn Storage Dam: A letter was received from the Yallourn Storage Dam Advisory Committee soliciting the support of this Club in a tree-planting programme on the north shore of the dam. It is intended to plant between 300 and 400 trees this year. The Executive recommended to members that the Advisory Committee be advised that, while the Club fully supports the idea of tree planting in this area, it is at present fully committed to the 25 acres at the Hazelwood Arboretum and further planting and care this year, and is not in a position to undertake the additional work involved at Yallourn. (In respect to the Hazelwood Arboretum project, there is an excellent article in this Newsletter by Mr Auchterlonie of Club responsibilities there).

Wombats: It was recommended that a letter be addressed, on behalf of members, to the Hon. J.C. Balfour, Minister for Lands and Conservation, expressing appreciation of the recent legislation to remove the bounty on Wombats in Victoria. Since 1950 alone, a bounty has been paid on the scalps of 52,000 of these interesting survivals of Australian native animals. The lack of a monetary incentive should considerably reduce the cruel and senseless destruction of what has been referred to as 'a living fossil'.

Excursion to Waratah Bay on Saturday 26th. March 1966:

The March excursion is to Warrakerville on Waratah Bay and is to be led by Mesdames Lyndon and Brewster, who are both so well acquainted with the flora and fauna and other natural features of the area. Members are to meet at Meeniyah, at the road junction at 10 a.m. Mrs. Lyndon has written - "... I would suggest that the party makes its way over by any route - the Mountain Hut - Coast Road eliminates most of the hills - and that we meet at Meeniyah ... and we lead you via Buffalo and Fish Creek to Sandy Point ... other Waratah beaches could be visited later in the day if anyone wished ... From Fish Creek the route traverses some bush country and we might locate spots of interest to stop at ... "

Members desiring transport should contact any of the following:-

Morwell.	Mr. Jim Peterson.	14 Barry Street.	42129.
Moe.	Mr. S. Belgraver.	179 Lloyd Street.	
Yallourn.	Mr. G.T. Scanlan.	Hospital.	52111.

Former Meeting Place: The Club is to address a letter to the Headmaster of the Morwell High School, Mr. Maddern expressing sincere appreciation for the use of the High School for meetings of the Club for so long.

Traralgon South Reserve: The Traralgon Apex Club has undertaken to complete the fencing around the Reserve, and the assistance of L.V.F.N.C. members is sought to clear rubbish and dead timber from the area. More of this matter at the Annual General Meeting.

The next Executive Meeting will be held at the home of Miss Jean Galbraith on Friday the 1st. of April at 7.30 p.m. Any member of the Club is welcome to attend these meetings.

Articles in this Newsletter: The Editor wishes to thank contributors for the articles which follow. Miss Jean Galbraith somehow has managed to sacrifice some time in an extremely busy 'botanical' life to write for our interest, education and enjoyment; Mrs. Lyndon has been a constant, reliable contributor of articles of interest and authority, and Mr. Bob Auchterlonie has a practical example in his delightful garden to substantiate his authority on the planting and care of Australian native plants.

The Trap of the Fairies' Aprons: by Miss Jean Galbraith.

The sight of Fairies' Aprons (*Utricularia dichotoma*) blooming in a wet hollow near Yallourn North this summer suggested that fellow members might like to hear of the amazing way in which this small plant traps its food.

The name of the plant is most apt. Each flower is like a delicate little half-inch purple apron narrowed to a tiny 'bib' at the stalk end, and hung like a flag from an erect stem, 4 to 10 inches high. Another species (*U. lateriflora*) which grows in the same place, has smaller flowers, which are hung at half-mast instead of from the top of the stem. The plants of both species grow in wet soils which are submerged for at least part of the year.

Each plant consists of a slender stem with one or several flowers, rising from a tuft of small leaves. When there is no surface water the leaves are flat, undivided, and perhaps a $\frac{1}{4}$ inch long, rather oblong or ovate, but

when the leaves are submerged a wholly different type of foliage develops. The underwater leaves are divided into fine seaweed-like segments, many of them ending in little bladders, smaller than a grain of wheat. Seaweed also has little bladders, but they are floats. Those of Fairies' Aprons are not. They are amazingly complicated traps to catch insects and other minute water-creatures which provide the plants' food since their roots are very poorly developed, and act more as anchors than as food-gatherers.

The bladders are more or less oval, each with a door in the outer end. In some species the door is hinged and swings inward. Others are more complicated - in these there is a line of weakness down the centre of the door, enabling it to open by folding or bending down the centre.

It is to this group that our Fairies' Aprons belong, and it is much more complicated than it sounds. When the door is closed it rests against a threshold of soft cells across the 'floor' of the trap immediately inside it, and because there is little water and no air in the trap the water-pressure outside forces the door so hard against the threshold that both it and the walls of the trap are quite concave. We might well wonder why the trap is not full of water. It was when it was open, but when it closes water conducting hairs in the top of the trap excrete most of the water, leaving a semi-vacuum inside.

There we have our empty trap with a watertight door and water on all sides pressing against it. What happens next? In the edge of the door are several bristles or trip hairs, inserted under the line of weakness which you remember runs down the centre of the door. They are both trip-hairs and baits, for the outer ends secrete nectar or at least a sweet liquid. Naturally, this attracts various free-swimming small creatures in the water. One swims up to the bait and in seeking it brushes the trip-hair. This lifts the bottom of the door enough to allow water to rush in. Thus the outside pressure is released and the door buckles outward at the point of weakness leaving a space through which the creature which tripped the hair is carried inside by the inrush of water. There it is digested by enzymes secreted by hairs inside the trap, and then absorbed by the trap walls.

The pumping out of the water and consequent resetting of the trap takes as little as fifteen minutes in some species, as much as half an hour in others, and in some larger non-Australian species up to two hours, but in our Fairies' Aprons it would be about half an hour. 'Pumping' is a descriptive, but inaccurate, description of the removal of water from the traps. It is actually removed by osmosis - the process by which a thin liquid passes through a membrane into a dense liquid until the density is the same in both.

The outer ends of the hairs secrete mucilage. This surrounds them with a much denser liquid than the water inside the traps, which thus passes out by osmosis.

The whole process of trap, tripping hairs, capture, digestion, osmosis and resetting is so complicated that it is hard even to describe clearly. Remember also that it happens in a bladder smaller than half a wheat-grain - that there are many such traps on each plant, and that many different species have variants of the one described - free swinging doors; folding doors, varied trip-mechanisms etc., and this one small plant fills one with amazement and admiration. As for the captured insects (often as amazingly complex as the trap that catches them) - they do not really need sympathy. It is unlikely that they are capable of feeling pain as we know it.

Leaves: "Small leaves reduced to alternate scales" is the usually accepted (and usually accurate) description of the foliage of our 'Wild Cherry' or Cherry Ballart (*Exocarpus cupressiformis*). Young plants however have sometimes a very different foliage and I was interested to see this for the first time on the Moroka River road in February.

Several seedlings of the *Exocarpus* had sprung up along a cutting, and it is on seedlings only that one finds *Exocarpus* leaves which are not the familiar minute scales.

These leaves were an inch to $1\frac{1}{4}$ inches long and about $\frac{3}{16}$ th. of an inch wide near the base of the seedlings, and narrowly lanceolate, becoming smaller and narrower, so that on a six inch stem they changed through linear to scale-like.

----- J. Galbraith -----

The Elusive ClubMosses: by Mrs. Ellen Lyndon:

Most of us, the unscientific naturalists, are drawn, by our love of flowers and trees, to the study of plant life, and often this becomes our main interest in the field of natural history. There are many very competent amateur botanists who delight in the flowering plants, or the orchids. Study of the ferns opens another field of interest and a good one for beginners.

In the F.N.C.V. Handbook of the Ferns of Victoria and Tasmania, after the main sections on ferns, and then the fernlike plants, we come to the Clubmosses. These are a group of plants bearing true leaves but with spore-cases arranged in the form of a spike or club. Quite large plants these, and easily determined, not nearly as difficult as the true mosses. Study the illustration in the Fern book and watch out for these plants in the field.

Perhaps the commonest one and the most abundant in Victoria is the Slender Clubmoss, (*Lycopodium laterale*). It can be quite small or up to a foot in height in favourable situations; slender and rats-tailish, branched sometimes but often undivided. The Bushy Clubmoss (*L. deuterodensum*), is easily recognised, a miniature pine-tree several feet in height and much branched. We know it in isolated patches on the sandy coastal plain and on the Promontory, and in similar country in East Gippsland.

There are three Alpine species, two of them uncommon, and all of them may be found on Mt. Baw Baw. The Mountain Clubmoss (*L. fastigiatum*), is usually plentiful, growing sturdily against the granite rocks, but sometimes trailing for a foot or more through sheltered crevices. It is much branched and fernlike. The rarer Fir Clubmoss (*L. selago*), grows in small clumps by the little streams in the alpine bogs, stiff and fir-like, the tight packed leaves often yellowish in colour. *L. selago* appears to vary a little in form and colour. Sometimes it can be a much stouter plant, dark-green and almost succulent, with widely spreading leaves. A hopeful moss hunter can be misled into thinking it is 'Something New'!

Earlier this year, in the pleasant company of members of the Ringwood F.N.C. I came on the Spreading Clubmoss (*L. scariosum*), in a short rough gully beyond the cairn on Mt. Baw Baw. The patch was not extensive. It was

located on firm damp ground by the side of a streamlet, partly shaded by shrubbery. This is a pretty little plant, prostrate and much branched, resembling some dainty fern. It is quite a rare one and was a very rewarding sight after much diligent searching. However, there are rarer ones yet on the list for me and their possible discovery adds zest to excursions into likely country.

----- E. Lyndon -----

Operation Windbreak: - A Progress Report: by Mr. R. Auchterlonie.

As mentioned in the October Newsletter, the Hazelwood Arboretum sub-Committee has decided to plant a windbreak on the north and portion of the west side of the plantation. Actually, a willingness to do this was indicated to the S.E.C. when the pines were removed owing to Sirex threat.

During the coming planting season, we are already committed to the planting of 200 young trees, now being grown on to planting-out size by Mr. Croft, to replace failures in the main plantation. So we face a programme which will tax the resources of our all too slender band of volunteer workers to the limit. Able-bodied workers will be urgently required at planting time, and again next November and December for weeding, mulching, and keeping at bay that arch-enemy of young trees - lone, rank grass. All of these operations are vital to the success of the plantings.

The windbreak as planned will consist of three rows, the outer row comprising smaller shrubby types, the centre row medium height, and the inner row taller kinds. The genus *Melaleuca* offers a wide choice of suitable species, so it was decided to draw largely on these. *M. armillaris*, 'Bracelet Honey Myrtle', and *M. pubescens*, 'Moonah', were chosen for the centre row.

As the purchase of the 150 young trees needed would run into a considerable sum, three of our members decided to raise them themselves. Miss Rossiter obtained the seed from Mr. Althofer, of Nindethana, N.S.W., one of our best known suppliers of Australian native plant seeds. Mr. Parsons offered to germinate them at his nursery, and the writer undertook to transfer the seedlings into tins and grow them on to planting size.

In preparation, some 200 large size beer cans were assembled, tops removed, drainage holes punched. Add a quantity of nice fertile alluvial soil from the Narracan Creek flats, and all was in readiness. Late in December, word was received from Mr. Parsons that the seedlings were ready to pick out. Those labelled *Melaleuca armillaris* were then up to one inch high, and healthy looking. *Melaleuca pubescens* were less than half that size. By the 28th. December all were pricked off into tins. To settle them in, and start them off, they were watered with a half-strength solution of Zest, a urea based fertilizer. Partial shade from the hot midsummer sun was given by a piece of light hessian.

I had expected the little seedlings to suffer a slight check on transplanting, and perhaps wilt a little at first. Actually, they did neither. The *armillaris* spurted ahead right from the start, and to my amazement had doubled their height by the end of the first week! At four weeks, they were six inches high, with side branches sprouting, and at eight weeks, a foot, and at the time of writing, 10 weeks after pricking out, they are fifteen inches high, with a dozen or so side branches, and roots showing at the drainage holes. The *pubescens* were much slower, and are now about six inches high, and just starting to branch.

Everything going nicely you may think - but a rude shock was in store. On a visit to the Arboretum, where there are several specimens of the *M. armillaris* growing, my attention was drawn to the fact that these differed from the ones I was growing. Leaves were narrower, a darker green, more crowded, and attached to the branch in a spiral pattern. My seedlings had leaves twice as broad, and they were attached to the stems in opposite pairs. Quite sufficient to prove that one or other must be wrongly named. At home again, a scrutiny of reference books soon established that the Arboretum specimens were the ones correctly named, and the seedlings we had been carefully raising were - who knows what?

And that is the question at the moment, just what are they? Any botanist will tell you that flowers and fruit are necessary for positive identification, but these are, of course, not available in our case. An assessment of their other features adds up to the possibility that they are *Melaleuca linariifolia*, the Flax-leaved Paperbark, a hardy and attractive small tree, and reasonably well suited to our purpose.

Two alternatives are now open to us. We could scrap the lot, and start afresh, thereby losing twelve months and risking again getting the wrong seed, or we can go ahead and plant them out. I think the latter course preferable.

----- Bob Auchterlonie -----



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LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

Editor: G.T. Scanlan, c/o L.V.C. Hospital, Yallourn, Victoria.

Dear Fellow Field Naturalists,

The General Meeting on Friday the 22nd. of April should be regarded as one of the highlights in Club activities for the year. Mr. Norman Wakefield, who will speak on Mammals of Victoria, is well known to all serious naturalists, not the least for his 'Diary of a Naturalist' in the 'Age' of each Monday. These articles on the flora, fauna and geology of Victoria and Gippsland in particular are invaluable and the Editor treasures a natural history scrapbook which is principally of cuttings of the Diary.

Details of the General Meeting are as follows:-

Speaker: Mr. Norman Wakefield, B.Sc.
Subject: The Mammals of Victoria.
Place: The Yallourn State School.
Date: Friday 22nd. April 1966.
Time: 7.30 p.m. sharp.

Excursion Saturday 23rd. April 1966:

Place: Darlamurla via Mirboo North.
Meeting: At the big tree opposite the Darlamurla Railway
Place: Station.
Time: 10 a.m.
Leaders: Members of the Darlamurla Flora and Fauna Protection Society.
Hosts.
Purpose: To view an area which is threatened with clearing for the purpose of planting pines, and to join with the Society in representations for preservation of some part of the area.

EXECUTIVE Meeting held on Friday 1st. April 1966:

This was held at the home of Miss Jean Galbraith of Tyers, and a brief summary of some of the matters dealt with follows:-

PHOTOFLORA EXHIBITION: An account of Photoflora, a showing of coloured slides principally of native flora on the 25th. March, is included in this issue. The exhibition was a great success from every point of view.

DARLAMURLA: Two members of the Darlamurla Flora and Fauna Protection Society attended the Executive Meeting seeking the support of the Club in approaches to the appropriate authorities for the purpose of preserving an area which is threatened with destruction. It was decided that this Club should support any efforts made, and arrangements were made for

a survey of the flora and fauna to be commenced by members during the Easter weekend. The excursion on Saturday the 23rd. of April will enable other members to view what is said to be an interesting area.

HAZELWOOD ARBORETUM: A sub-Committee has been appointed to solicit the assistance of other bodies in the district in the planting of trees, and the care of those already planted at the Hazelwood Arboretum. A further planting of about 100 trees, raised by Mr. Bob Auchterlonie is to take place on Saturday the 16th. of April. Members are earnestly requested to be at the Arboretum at about 9 a.m. on this Saturday to assist in a planting which cannot be delayed. Mr. Auchterlonie has stated that they are now becoming too big for the tins in which they are growing and, of course, the splendid rains mean that this is now an ideal opportunity to give them a 'flying' start.

Mr. Ken Eldridge: Mr. Eldridge, a former President of the Club, has been awarded a scholarship to undertake research and study into the eucalypts at the Australian National University at Canberra. Members will remember with pleasure the excursions led by Ken, his careful preparation and patient, cheerful descriptions of the trees, and will join with the Executive in congratulations to him.

Mr. Ern Homann: Mr. Homann, President of the Club, is at present holidaying at Madang, New Guinea. Appropriate extracts from a letter to Mr. Peterson will be included in the Newsletter as space permits.

Next Meeting of the Executive will be held at the home of Mr. & Mrs. E. McElroy, Morwell, on the 13th. May at 7.30 p.m..

This Newsletter: Mr. Jim Peterson, Senior Vice-President, makes a plea (below) for contributions for the Newsletter. This is a plea for survival ! In order to continue publication and to maintain the standard which it is believed has been attained, there must be a wider participation by members in the provision of articles. Do help !

A Plea by Mr. Jim Peterson: The Newsletter has always provided an interesting and valuable link between members. It has developed from its original concept - a record of the business of the Club - to providing a valuable record of the natural history of the Latrobe Valley. Many of us have filed our copies for future reference. I find myself referring again and again to earlier copies for information - what plants grow at so and so when did we see them flowering etc.. If this happens after 2½ years of publication, its value in 10 or 20 years time can be imagined. I will make this prophecy ; - The Newsletter will be the only record of the natural history of the Latrobe Valley, much of which will have disappeared in the intervening years. That is of course if the Newsletter continues to be printed over those years.

Why shouldn't it be printed ? We have a very keen and competent editor who asks only one thing of us - that we provide him with the material to print. Nothing more is asked of us.

Do we provide this material ? Every Newsletter goes to print with just enough material, usually received at the last minute.

Is this fair to the Editor ? I too am one of the offenders who has had material of interest but has not been able to put that little extra effort into recording it. Can each of us start with the contribution of one article ? This would give the Editor a selection of material to publish at his leisure. Record some interesting observation. What interests you is sure to be of interest to other members, and we will all learn a little more of the subject so dear to us. It need be only half a dozen lines !

----- J. Peterson -----

PHOTOFLORA '66: Impressions and Digressions by H.G. Toye.

"Right down to the front row, among the kiddies please", and a slightly late member was fortunate indeed to get a seat anywhere. For the youngsters turned up in force too - Scouts, Guides and many tiny's.

Thanks must go to the hard working Executive for the opportunity for us to have this local viewing of Photoflora, which previously had only been shown in the City. The fact that Photoflora is being shown this year at centres throughout the State is indicative of the widest public interest in aspects of conservation. This should stand societies in good stead in any future departmental dealings on Reserve areas and like matters.

Dr. Christensen, the originator of Photoflora, provided the commentary and conducted the exhibition. The handling and commentary on over 150 slides was in itself no mean feat when about 50 slides per show is generally accepted as good measure.

Enthusiasts are often regarded as gluttons for punishment, and some of us at least must have got around to wondering just what the other 579 submitted slides, that we didn't see, were like. Surely here is scope for an interesting 'teach in'. All would have at least some point of interest, and this indicates something of the patience and skill of the judges in dealing with such a mass of material.

Dr Christensen announced that Photoflora would now cease to be an annual event and would in future only be held at two yearly intervals. Gippsland Field Nats. Club members were well represented in the final acceptances, Mr. Bob Auchterlonie once again having the distinction of all four slides accepted in Section A. Mr. & Mrs. Brooks of Warragul and Mrs. Thompson of Traralgon South showed Gippsland ferns to advantage with R.W. Reid of Warragul among the Everlastings and, in the Landscape section, beyond Bennison Plain around Mt. Howitt.

Those who cultivate natives in their gardens give themselves added pleasure in observing their continual development besides mere opportunity to catch them at their photographic best. Whilst not being aware of the actual yardsticks used by the judges, the final results seem-

ed to underline the fact of basic harmony in nature. So pleasing were the arrangements in both chromatic and spatial forms that almost any of the chosen slides could have, as oils on canvas, graced the walls of any art show - abstract or representational.

One aspect of Photoflora was that it appeared almost totally devoid of the human element. This lack of a familiar relative scale is noticeable when subjects like forty feet high trees are reduced down to a four feet screen to alternate suddenly with mere four inch blossoms that expand up to the same screen size. This could be confusing to the uninitiated to know whether the brief viewing was meant to be seen through the eyes of Mr. Gulliver or one of the Lilliputians.

In Section D - 'In the Bush With a Camera' - the flowerless fungi were very much the favourites with the camera hunters. What with Ghost fungus and animal eating Drosera (Sundews) this could almost have been a horror section. Saved perhaps by our remembering the artist Ida Rentoul Outhwaite series of popular postcard sketches of 'Fairy Lampshades' and 'Pleated Parasols' painted in our childhood years complete with hordes of fairies. For those who may care to follow up the subject, there exists in one of our libraries the recipe, handed down from the Middle Ages, of a potion of European flowers and herbs, 'Enabling one to see Fairy Folk'. No guarantee is given as to its ultimate effect, but it is easily seen from the contents that you could end up with a derivative of alkaloids and alcohols much more likely to produce images of Fiery Dragons than the said fairies.

Also in this section was a fine slide showing progressive ripening of the Kangaroo Apple. Some years ago a friend had grafted this with a domestic Tomato to form an interesting variety of Tree Tomato. This native variety does well hard by the bungalows at Tidal River. Another bright Promontory specimen, notable on the beach dunes at Tidal River, seen in full glory on the November trip, was the Magenta groundsel which we learned arrived as a South African tourist some 50 years ago. To finish on a tasty note, the edible centre of the Tree-fern was described as "of protein with overtones of astringent tannin", a sort of vegetative steak with alum-flavoured tea leaves. As I listened to the Scouts' groans at the idea of ever having to eat it, I thought how clever it was for this plant to have arranged its own inbuilt Preservation Society !

----- H.G. Toye -----

The nostalgic verse by Lance Galbraith which follows, reminds many of us, especially the older ones among us, of the "Jackson's Paddocks" we have known - some of which have become ugly crowded suburbs of little boxes, where the sound of bird songs has been replaced by traffic noises and sound of lawnmowers on Sunday mornings; and the native trees and shrubs by lines of untidy poles and strings of wire of telephone and power services. We need to be reminded of those and the other "Jackson's Paddocks" to provide a greater incentive to enjoy and strive to preserve what still remains of places where there can still be seen 'heath in its glory', and heard the 'lilt of bird songs'.

(Ed)

JACKSON'S PADDOCK: by Lance S. Galbraith.

(Note by the author; "The paddock referred to below was one of the finest wildflower areas in the Traralgon South district, and was one of the joys of our youth. The name has of course been changed. Since I first wrote this poem the old shed has disappeared.")

The old track still winds round Jackson's paddock;
The old shed is standing still,
But no Messmate slants its shining leaves there;
There's no heath aflame on the hill.

There's a barb-wire fence round Jackson's paddock,
A new gate instead of rails;
But no drift of wattle gleams like sunshine,
And no starry clematis trails.

There's a herd of cows now in Jackson's paddock;
The long slope is grazed with care,
But no golden whistler sings his heart out,
No spinebill feasts joyously there.

The lush grass looks fine in Jackson's paddock,
And the clover's green beneath,
But the magic's gone with the lilt of bird songs,
And the glory gone with the heath.

----- L.S. Galbraith -----

MONARCH OR WANDERER BUTTERFLIES: by Lance S. Galbraith.

This has been a particularly good season for the handsome Monarch Butterfly, often known as the Wanderer. Nearly every specimen of its host plant, the Swan plant (*Asclepias physocarpa*), had one or more of the large 'tiger-striped' caterpillars feeding vociferously on it during the late summer and early autumn, and the beautiful green pendant-like chrysalis with gold spots have featured in school children's nature observations very frequently during the last month. Many adults emerged during the second half of the month.

This butterfly has had more written about it than any other member of the family and I don't wish to repeat what is common knowledge so I will content myself with a couple of questions. The irregularity of visitations by the monarch is well known, but does this visitation take place on a district wide, State wide or Australia wide basis? The host plant is widespread year in and year out. Is it the particular weather here, or somewhere else that has brought them in large numbers this year? Finally, and this is pure memory and perhaps faulty, I think they are usually common in good mushroom years. If so local weather must be the determining factor!

----- L.S. Galbraith -----

ORCHIDS OF THE LATROBE VALLEY: by J. Peterson.

Over a period of years the Newsletter can provide a record of the natural history of the Latrobe Valley. With this in mind I would like to record recent sightings - over the past three years - of orchids in the central Latrobe Valley area. The area indicated is frequently only one of a number in which these species can still be found. Further information on the species listed can be obtained from me or Club members Mrs. Thompson or Mr. Ern Homann. It is hoped that the list will be added to as other species are found.

Thelymitra grandiflora.	Great Sun Orchid.	Erica Rd. Moondarra.
" pauciflora.	Slender Sun Orchid.	Midland Hy. Sth. of Yinnar.
" ixioides.	Dotted Sun Orchid.	Erica Rod. Moondarra.
" "	v. truncata.	Clarks Rd. Hazelwood Nth.
" media.	Tall Sun Orchid.	Whitelaws T'k. Yinnar Sth.
" venosa.	Veined Sun Orchid.	Mt. Baw Baw.
" carnea.	Pink Sun Orchid.	Clarks Rd. Hazelwood Nth.
" flexuosa.	Twisted Sun Orchid.	Whitelaws T'k. Yinnar Sth.
Calochilus imberbis.	Naked Beard Orchid.	Stoney Ck. near Cowarr.
" robertsonii.	Purplish Beard "	W3 Track. near Tyers.
" paludosus.	Red Beard Orchid.	Moe Nth. (E. Homann)
Diuris longifolia.	Wallflower Orchid.	Jeeralang N. Rd. Hazel'd Nth.
" sulphurea.	Tiger Orchid.	Old Sale Rd. Morwell Nth.
" pedunculata.	Golden Moth Orchid.	" " " "
Orthoceras strictum.	Horned Orchid.	Andersons Tk. Yallourn Nth.
Microtis unifolia.	Common Onion Orchid.	Jeeralang N. Rd. Hazel'd. N.
" biloba.	Onion Orchid.	" " " "
" parviflora.	Slender Onion Orchid.	Clarks Rd. Hazelwood Nth.
Prasophyllum despectans.	Sharp Midge Orchid.	Andersons Tk. Yallourn Nth.
" suttonii.	Mauve Leek Orchid.	Mt. Baw Baw.
" australe.	Austral Leek Orchid.	Andersons Tk. Yallourn Nth.
" alpinum.	Alpine Leek Orchid.	Mt. Baw Baw.
" odoratum.	Sweet Leek Orchid.	McDonalds Tk. Hernes Oak.
Caleana Major.	Large Duck Orchid.	Princes Hy. Hernes Oak.
Spiculaea huntiana.	Elbow Orchid.	Moondarra Reservoir.
Chiloglottis gunnii.	Common Bird Orchid.	Whitelaws Tk. Yinnar Sth.
" cornuta.	Green Bird Orchid.	Mt. Baw Baw.
" reflexa.	Autumn Bird Orchid.	Moe Nth. (E. Homann).
Acianthus caudatus.	Mayfly Orchid.	Koornalla Reserve. (Mrs. Th's)
" reniformis.	Mosquito Orchid.	Clarks Rd. Hazelwood Nth.
" excertus.	Gnat Orchid.	" " " "
Eriochilus cucullatus.	Parsons Bands.	Koornalla Res. (Mrs. Thomp'n)
Lyperanthus nigricans.	Red Beak Orchid.	" " " "
" suaveolens.	Brown Beak Orchid.	Clarks Rd. Hazelwood Nth.
Caladenia menziesii.	Hare Orchid.	Moe Nth. (E. Homann)
" dilatata.	Green Comb Spider O.	Jeeralang N. Rd. Hazel'd. Nth.
" patersonii.	Common Spider Orchid.	Old Sale Rd. Moe. (E. Homann).
" alba.	White Caladenia.	Moondarra Reservoir.
" aurantiaca.	Orange Tip Caladenia.	Koornalla Res. (Mrs. Thomp'n)
" carnea.	Pink Fingers.	Jeeralang N. Rd. Hazelwood Nth.
" lyallii.	Mountain Caladenia.	Mt. Baw Baw.
" augustata.	Musk Caladenia.	Whitelaws Tk. Yinnar Sth.

Con'td. Over.

Orchids 'Cont'd.

Glossodia major.	Wax Lip Orchid.	Princes Highway. Hernes Oak.
Corybas dienenicus.	Slatey Helmet Orchid.	Clarks Rd. Hazelwood Nth.
" dilatatus.	Veined Helmet "	" " " "
" unguiculatus.	Small Helmet "	Whitelaws Tk. Yinnar Sth.
Cryptostylis subulata.	Large Tongue "	Andersons Tk. Yallourn Nth.
" leptochila.	Small Tongue "	McDonalds Tk. Hernes Oak.
Pterostylis parviflora.	Tiny Greenhood "	Whitelaws Tk. Yinnar Sth.
" falcata.	Sickle Greenhood "	Jeeralang N.Rd. Hazelwood N.
" alpina.	Alpine Greenhood "	" " "
" acuminata.	Sharp Greenhood "	" " "
" grandiflora.	Cobra Greenhood "	Whitelaws Tk. Yinnar Sth.
" fischii.	No common name.	Clarks Rd. Hazelwood Nth.
" concinna.	Trim Greenhood "	Traralgon South Reserve.
" pedunculata.	Maroonhood "	Clarks Rd. Hazelwood Nth.
" nana.	Dwarf Greenhood "	Whitelaws Tk. Yinnar Sth.
" nutans.	Nodding Greenhood	" " " "
" curta.	Blunt Greenhood.	Jeeralang N.Rd. Hazelwood N.
" longifolia.	Tall Greenhood.	" " "
" pusilla.	Ruddyhood.	" " "
Gastrodia sesamoides.	Cinnamon Bells.	McDonalds Tk. Hernes Oak.
Spiranthes sinensis.	Austral ladies' tresses.	Andersons Tk. Yallourn Nth.
Dipodium punctatum.	Hyacinth Orchid.	Clarks Rd. Hazelwood Nth.
Sarcochilus australis.	Butterfly Orchid.	Jumbuck Rd. Yinnar Sth.

----- J. Peterson -----

HONEYEATERS IN BANKSIA ericafolia: by Mrs. May Galbraith.

If you want to attract Honeyeaters to your garden during the Autumn and Winter plant a Banksia ericafolia. It begins flowering in March once it is established and keeps on opening large orange candles of bloom all through the winter and up to October. We never saw a Honey-eater here before planting the Banksia, but every winter now one or more species visits us. First the White-eared Honeyeater, then the Spinebill, next the Yellow-winged, and this autumn a Crescent Honeyeater spends all day in the garden singing or feasting on the honey from the Banksia. Just for one brief visit a beautiful little White-naped Honeyeater came, and the Yellow-faced Honeyeater found the tree last week only to be vigorously chased away by the Crescent.

The Red Wattle-Bird comes often and seems to be the only bird the smaller Honeyeaters cannot chase away. That makes seven species of Honeyeaters and we add one each year now. Also a flock of Silver-Eyes are fond of the Banksia blooms. They seem to enjoy honey as well as insects. In a country area it would attract far more, but in the town bush birds are rare.

----- May Galbraith -----

RED BLUFF AT SUNRISE: by G.T. Scanlan.

To one not normally required to compete with the birds in the matter of rising in the morning there is a special feeling of well-being - and virtue or smug self satisfaction - at being abroad before the sun is up. The pleasurable feeling may be tempered somewhat by the weather, but on the morning of the public holiday in March it was delightful as a little after first light of dawn the writer set out from Lakes Entrance township for Red Bluff. There was no wind, the air was mild, and the sky lightly clouded and lit with the pre-sunrise colours that sometimes rival those of sunset.

The birds were already astir and could be heard and seen busy in the plentiful coast blossoming bahksias. They were mainly Red Wattle-Birds, with their harsh but not unpleasant sounds, and the Little Wattle-Bird, although through the forested areas could also be heard the Bell Miner and near Red Bluff the sharp whip-crack ending call of the Rufous Whistler.

The purpose of the unusually early rising was to view Red Bluff at sunrise, and have a final look, for the time being, at the coast of that part of the Ninety Mile Beach on the last day of a five-day stay at the 'Lakes'.

Red Bluff, as most readers will know, is about $4\frac{1}{2}$ miles from the artificial entrance to the Gippsland Lakes opposite Jemmy's Point. It marks the north-eastern extremity of a long line of sand dunes which front the Ninety Mile Beach, and is an active rocky cliff, the first to break the long stretch of coastline from Corner Inlet in the south-west.

In 'Sailing Directions for Victoria', a publication of the Ports & Harbours Branch (and a 'must' for all mariners), it is stated that from the sea the bluff looks red - hence its name - and this is due to the red oxides in some of the sandstones of which it is composed. On this early morning the bluff stood out boldly as it was viewed from a little distance along the eastern beach and as the sun, dissected by clouds, came over the horizon. The sandstone of the bluff was at first dyed a deep brown from the cloud reflected light and changed as the sun emerged and separated from the sea, becoming more subdued and seen to be mixed with greys and the near-white of overlying sand. The bluff itself then showed as less prominent and in a truer perspective in relation to its surroundings. The boldness was relative only as Red Bluff, jutting out slightly to break the long line of beach, is about 100' high, rising at the back, where it is thickly timbered, to about 200'.

Red Bluff is composed of Tertiary sandstones, and the rocks are being eroded by the strong waves of the sea - a platform is in process of being cut in the bluff between high and low water marks. The sedimentary rocks here were laid down during a period when the great ice-caps and glaciers of the earth melted, and large areas of Victoria (and elsewhere) were submerged by the much higher waters of the sea. Since the

sea reached its present level at about 6000 years B.P. (Bird), the former massive cliffs of sandstone, of the 'Jemmy's Point' formation, have been subjected to the pounding and battering of heavy seas until, eventually, the rocks will be reduced to the sands from which they were formed.

Erosion has created some strange forms out of the sandstone - much of which has already been reduced to sand and washed away - and many large rock fragments, torn from the face of the bluff, lie around at its base on the sand in a great variety of shapes. In places they have the appearance of having been tossed aside by some petulant giant hand as rock lies untidily upon rock. Some of these fragments look like broken statuary, one bearing the shape of a headless, limbless human torso. Others have the appearance of sculptured parts of limbs and other objects (sculptor's rejects?), while otherwise perfectly smooth, flat surfaces are tool-ed with the regular ripple marks of waves; others are modernistic pieces which challenge recognition of the symbolism sculptured by some unknown artist. Some pieces are deeply but neatly pitted or completely holed and one, smooth and almost perfect is a vessel handle of an ancient potter's working. These and many other shapes are the visible evidence of the mighty wearing characteristics of sand-laden water ceaselessly working on the comparatively soft rocks over immensely long periods of time.

Crowded between the jumbled sandstone blocks was miscellaneous debris, the flotsam and jetsam of the sea - masses of seaweed, great lengths of brown weed with thick leathery fronds and usually holdfasts attached; green seaweed, including the sea lettuce and others; and the red seaweed, not as plentiful as the browns and the greens because, although it is the most prolific in Australian waters, it lives at far greater depths and is less likely to be torn from the sea floor. There were several kinds of sponges, an abundance of broken shells, the skeletons of fishes and other sea creatures; driftwood, and a comprehensive collection of water-worn rocks, ranging from boulders down to gravels. These were not related to the sandstone in which they lay, but had been transported by many devious means from the north, and in themselves provided a fascinating glimpse into the past, and are some of the evidence upon which geologists have formed conclusions on the geological history of Victoria.

There were sandstones worn smooth and of a variety of colours, quartzites, probably hard dark limestones, granites, rocks of volcanic origin, porphyries, schists, quartz and many others, including polished and beautiful specimens of the green rhyodacite, which underlies the limestone of the Murrindal area and is exposed in massive rocks in the bed of the Murrindal River at the Pyramids beyond Buchan. In age this conglomeration of rocks would probably range from Cambrian to at least late Pleistocene - a length of time beyond the comprehension of the human mind.

The fossicking among the rocks at the base of the bluff was followed by a walk along the beach in an easterly direction, a comparatively clean shore line with some little residue from the sea in the shape of shingle, the quartz buttons having a particular attraction. There were innumerable tracks of tiny sea creatures on the sand. The sand itself was yellow, being largely composed of iron-oxide stained quartz grains, with a

noticeable proportion of shell fragments in its make-up.

The position of the sun and a feeling of hunger indicated that it was time to return to Lakes Entrance, and this involved trudging back up the badly eroded track to the roadway. It appeared that the track had been cut through the thick timber at some earlier time to enable access to the beach by vehicle. At the bottom of the track and above the sand were the remains of a shelf composed of shells apparently loosely bedded in plentiful black ash and sand. The bottom of the large shell deposit was about 10' above present high water level, and the deposit itself must have been much higher and more extensive before the cutting of the track and the erosion that inevitably followed.

From the nature of the shells, their great variety, many of them large and thick, many broken, the apparent presence of ash, together with the probable unlikelihood of deposition of such large quantities by the sea, it appeared not unreasonable to conjecture that here, from time to time, large numbers of aborigines had congregated to collect and feast upon the obviously abundant shellfish, heaping the discarded shells on the ashes of countless fires. Higher along the sandy overburden on each side of what appeared to be the principal deposit were thinner long lines of shells. Was Red Bluff the site of an aboriginal kitchen midden? That was a question to ponder on the return journey to the 'Lakes' and to breakfast, with the sun now about three hours past its rising.

--- G.T. Scanlan ---

LYRE BIRDS AT THE SOUTH CASCADE: by J. Peterson.

During our 'camp-outs' at the South Cascade we have frequently heard Lyre Birds. They have entertained us from the road embankment within 20 feet of our caravan, but the slightest attempt to look has disturbed them. So one is fortunate to catch a glimpse of a bird. Iris has had the good fortune to creep on a lyre bird whilst it was singing and was entranced by it for some time. Finally the bird, when moving towards her, recognized her as a human being and smartly disappeared.

On our last camp-out we tried to stalk them but it was difficult to move noiselessly in such country. After one such occasion we were moving on but were brought to a stop by a piercing cry which could be best described as a mixture of a scream and a whistle. This was followed by a pilot bird coming out of cover and scolding us severely. Nothing else could be seen, and with old 'give away' chattering, there was little point in stopping anyway. A few more steps and a repeat shriek, plus more scolding from the pilot bird, but not a thing could be seen nor where that noise came from. As a last resort we looked up and there, with a wonderful view of us, (and we of it!), was a male lyre bird. It was perched at the top of an acacia tree, about 30 feet above the ground. A quick and hopeful shot with the camera (results to date unknown), and away he flew to another tree and out of our sight.

Are these birds ventriloquists? I am sure that the shriek came from ground level, or was the sound reflected by the dense undergrowth?

--- J. Peterson ---

----- LATROBE VALLEY FIELD NATURALISTS' CLUB. -----

OFFICE BEARERS:

President: Mr. E. Homann.

Senior Vice-President: Mr. J. Peterson.

Vice-Presidents. Mr. G.T. Scanlan, Mr. F. Jones.

Treasurer: Mr. E. McElroy. Assistant: Mrs. F. Kinniburgh.

Excursion Secretary: Miss Nancy Rossiter. Assistant: Mrs. L. Padfield.

Publicity: Mr. R. Stevens. Editor: Mr. G.T. Scanlan.

Secretary: Mr. S. Belgraver, 179 Lloyd Street, Moe.

OBJECTS OF THE CLUB:

1. The study, enjoyment and conservation of nature;
2. The encouragement of an interest in the various aspects of natural history;
3. The holding of regular meetings and arranging for suitable speakers;
4. The organising of excursions or field days.

MEETINGS OF THE CLUB:

General meetings of the Club are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m. The subjects for talks at general meetings are published in the monthly Newsletter. Visitors are always welcome.

EXCURSIONS:

Excursions of the Club are in the nature of field days to places of botanical interest, or to study the fauna or geology of an area, with competent leaders.

SUBSCRIPTIONS:

The Club annual subscription is 10/- for a single person, 1/- for juniors, and 15/- for a family. The subscription covers the monthly Newsletter.

NEWSLETTER: Contributions are invited from members for the Letter which is published monthly. They should be addressed to: Mr. G.T. Scanlan, L.V. C. Hospital, Yallourn.

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LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

AMENDMENT FOR MAY GENERAL MEETING AND EXCURSION

It was intended to visit the A.P.M. Nursery in Traralgon on 23rd July after a talk on "The Economics of Eucalypt Planting" on the previous Friday. Mr. R.N. Cromer, who is in charge of A.P.M. forests and who will give the lecture, has advised us that he would prefer to give his talk at an earlier date, as most of the Nursery seedlings will have been planted out by July.

To fit in with invitations to other speakers, Mr. Cromer will now give his lecture at this month's meeting, Friday, 27th May, and we are invited to visit the Nursery on Saturday morning, leaving Traralgon Methodist Church corner at 9.30.

This will be a half day excursion, and it is planned to have lunch at the Traralgon South Reserve and hold the Working Bee in the afternoon.

LATROBE VALLEY FIELD NATURALISTS' CLUB.

NEWSLETTER MAY 1966.

Issue No. 30.

Editor: G.T. Scanlan, c/o L.V.C. Hospital, Yallourn, Victoria.

Dear Fellow Field Naturalists,

May Excursion: The excursion on Saturday 28th. May is to be in the form of a combined botanical field day and a working-bee at the Traralgon South Reserve. It is hoped to clear this valuable area of accumulated rubbish, including dead timber and the untidy litter of thoughtless dumpers, in order to permit the natural flora to flourish; and to complete the fencing of the reserve. There will be time to search for and see quite an interesting variety of flora, both during and after the completion of the 'spring-clean'.

For those who can, trailers, bags and a tool or two will be useful, such as spades, axes, rakes etc..

Members are asked to be at the Reserve at 9 a.m., or as soon as possible thereafter. The Traralgon South Reserve is reached by travelling to and under the railway bridge approaching Traralgon, and continuing along the Traralgon Creek Road to the Tarra Valley sign where a turn off is made to the right, following this road to the Calignee signpost. The Reserve is marked by a plain sign, and should not be difficult to find. Any further information may be obtained from the Assistant Excursion Secretary, Mrs. L. Padfield, telephone Yallourn 52 581.

General Meeting, Friday 27th. May: This will be held at the Yallourn State School and commence at 7.30 p.m. The speaker will be Miss Jean Galbraith and her subject 'Australian Carnivorous Plants'. Coloured slides will be shown to illustrate the talk which should be of great interest.

Executive Meeting: The May meeting of the Executive Committee was held at the home of Mr. & Mrs. Ted McElroy at Latrobe Avenue, Morwell, with our nomadic President, Mr. Ern Homann in the chair. Mr. Homann had just returned from an extended holiday in New Guinea where, among many other interesting experiences he had an unusual one of witnessing an active volcano in eruption, an awesome and unforgettable experience.

Among matters discussed were;-

Natural History Medallion: Miss Jean Galbraith was appointed L.V.F.N. Club representative on the selection Committee for the annual award of the Natural History Medallion for outstanding work in and contributions this field. Miss Galbraith also represents the Launceston, Tasmania F.N.C. on this Committee.

Hazelwood Arboretum: The formation of a Committee consisting of representatives of this Club and the Morwell Horticultural Society is in progress - the object being to enable more efficient organisation of the work still to be done at the Hazelwood Arboretum. For some time the work has been carried by a few dedicated individuals - to their great credit - but the burden is one that should be shared by a greater number of members from each of the two organisations. It is felt that this will result from the formation of the joint Committee.

A further report on recent planting at the Arboretum, by Mr. Bob Auchterlonie, is included in this issue of the Newsletter.

Contributions: The response by members to the appeal for contributions to the Newsletter has been excellent, and is extremely gratifying. Some of the articles must, of necessity be held over to the next or later issues, but none of them need to be nor will be consigned to the W. P.B. as some contributors suggested as a possible alternative to publication. The only reason for immediate selection is the desire to provide reader members with variety in subject matter and in the way of contributors. It is hoped that members will continue their efforts, and this might make it possible to eventually increase the size of the Newsletter. Please continue !

A CURIOUS MOTH - ACACIA MOTH (*Digglesia australasiae*) by Miss Jean Galbraith.

With our fellow-member, Mrs. Collins, I was looking at young trees in the schoolground. "See how the Cootamundra Wattle is growing", said my companion, then added, "Something is eating it". We discovered several grey-green caterpillars pressed close to the wattle stems and marked in such a way that we had to actually touch them before we were sure they were not part of the tree, although you would think several two-inch caterpillars on a small branch would be easily seen.

Two were larger and more sluggish than the rest, and were apparently preparing to spin cocoons. They were taken to the school and the children watched them spinning white cocoons amongst the wattle leaves.

Three weeks later they emerged as moths, and gave us all a wonderful example of protective coloration. The moth that was brought to me, hung from the branch like a dead gum-leaf caught in the wattle twigs. The mimicry was complete even to a short brown 'stalk' - a snout-like projection from the moth's face, and the antennae (feelers) which would have destroyed the illusion had they been held forward in the normal position were laid flat backward against the head, almost invisible except when held in the normal position during movement.

They were identified from the Jacaranda Pocket Guide to Australian Moths, but the picture in the book is misleading as it shows the wings spread to reveal the markings, although one learns from the text that they are folded tent-wise; in other words, like hanging leaves, as they were on our moth, which lived only a few days.

This species does not feed during its life as a moth. It has neither mouth nor sucking proboscis. It completed its life cycle by laying tiny oval white eggs which under normal conditions would become twig-mimicing caterpillars and later leaf-mimicing moths.

----- Jean Galbraith -----

HAZELWOOD ARBORETUM NOTES: by Mr. Bob Auchterlonie.

About one hundred of the young *Melaleucas* we have raised from seed were duly planted out on the 16th. April, along the top of the Arboretum, west of the entrance, and adjacent to the stumps of the old pine trees.

Mr. Althofer, to whom a specimen was sent, confirmed the opinion of Miss Galbraith and myself that these were *M. linariifolia*, the Flax-leaved Paperbark, sometimes called 'Snow-in-Summer, owing to its profusion of white flowers at that season. He was grieved to learn that the seed supplied was not as named, but added that he preferred *M. linariifolia* to *M. armillaris*. He also sent a packet of the correct seed, which has been sown, and is now up.

The planting site was carrying a heavy growth of Prairie grass, so arrangements were made to have it rotary hoed some three weeks prior to planting. When contacted by 'phone, the hoe owner replied, "Well, I'm pretty busy, but I think I could do it at 7 O'clock on Tuesday morning. Would that suit?" It would, so an early morning trip was made to show him where to work. Along and back he went twice, crashing through pine tree roots, and taking care to avoid a 2" water pipe which runs the entire length of the block just below the surface. I felt relieved when the job was finished without damage to the implement or pipe.

The early morning trip was worth while if only to see the gorgeous sunrise effects produced by the smoke from the Power Station chimney. The sun appeared as a huge red disc, and the smoke clouds took on all shades of red and orange. The surface of the lake was almost completely obscured by clouds and wisps of white vapour. Altogether a picture of entrancing beauty, - and my camera was left at home!

Also growing in great profusion among the prairie grass was the fungus *Lepiota rhacodes*. This a handsome mushroom which under favourable conditions grows as big as a soup plate, but is usually the size of a saucer. The cap is cream coloured, sprinkled throughout with sepia-brown flecks. The gills are white, and there is a prominent ring half way up the stem. When cut or broken, it exudes a red sap. Although quite wholesome and palatable, it is viewed with suspicion by most people, and is seldom eaten. It is only found growing where there is a build-up of humus, in this case rotting pine needles, and the remains of old cattle camps.

The presence of vapour over the lake at this stage leads one to speculate as to what the position will be when the power station is completed and discharging very much increased quantities of hot water into the lake. This hot water will presumably rise and form a blanket over the surface, where it will gradually give off its heat into the adjacent air. This will cause a marked rise in air temperature and humidity in the immediate vicinity, which will in turn exert an influence on the vegetation, including the trees in the arboretum. If so, greatest benefit would come in the winter months, when east, and to a lesser degree, south winds could be a few degrees warmer. Frosts could be reduced in severity, or even eliminated altogether. In the past, losses of young trees by frost have been heavy, particularly among *Eucalypts*. Whether these effects will eventuate, or whether they will be nullified by the colling effects of evaporation, only time will tell, but it is at least an interesting speculation.

NARGUNS' CAVE: by Mrs. M. Hague.

Recently, friends I was staying with at Lake Tyers took me to Narguns' Cave - it is situated in a deep gully at the end of Tooloo Arm, in forest country, and nearby is a haunt of Lyre birds. Once, tourists visited the place and trips were arranged from Lakes Entrance. That however, was in the days of horses and drags !

The cave is a cleft in the stone and is inhabited by bats. We walked only about thirty yards inside the cave, and even at midday it is an eerie place. Aborigines will not go near it, as they believe that the 'Nargun', a monster with a body of stone and arms of flesh, will grab them.

The calls of the Coach-whip bird and the Lyre bird echoing through the great trees cheered me as I left.

----- M. Hague -----

A GOOD EXAMPLE - AND A MARVELLOUS PLANT: by Miss J. Galbraith.

In an issue of 'Arizona Highways' sent by our American friends Mr. & Mrs. Diven, much space is devoted to a description of the 'Joshua Forest Parkway' in Arizona.

This is a reserve 17 miles long, and usually 400' wide (200' from the centre-line of the highway on either side - sometimes narrowed where the fences of private property are nearer the road), and is especially for the protection of Joshua trees and other native vegetation for the enjoyment of naturalists and travellers. Conspicuous native plants are named, and rest shelters provided here and there for picnickers so that they need not at other points encroach on the preserves of the Joshua trees.

It's a wonderful example ! Why not a "Christmas Tree Parkway" and a "Golden Banksia Parkway" in W. Australia - a "Red Gum Parkway" or a "Correa Parkway" in Victoria - an "Angophora Parkway" in N.S.W., and so on ?

Incidentally, the Joshua Tree is the world's largest Yacca, commonly 15 to 30 feet high, but, in one case at least, 80'. The 80' giant was estimated to be 1000 years old. The name Joshua Tree was given by early colonists because the uplifted arms of the tree reminded them of Joshua leading the Children of Israel into the Promised Land.

The writer of the article in "Arizona Highways" explains "For thousands of years Joshuas have existed solely because of a little greyish-white moth, Promuba synthetica, which plollinates their long bell-shaped flowers during March and April ... The tiny moth climbs up into the flower, gathers and rolls a ball of sticky pollen and tucks it under her chin. She flies to another Joshua Tree and climbs into another flower. There she lays her eggs in the ovules. She then climbs to the tubular stigma and presses the ball of pollen inside to fertilize the flower. What strange method the Creator uses to guide her nobody knows".

----- Jean Galbraith -----

THE BROWN PHASCOGALES: by Mrs. Bon Thompson.

A few months ago we found two little mouse-like creatures dead around the farm. As they had very sharp pointed noses and long broad feet we sent one to Melbourne for identification. It appears they are Brown Phascogales - *Antichenus stuartii*. The letter from Mr. Warneke states:- "Although it is so very much like a mouse in appearance it is really a marsupial, giving birth to its young at a very early stage in their development (they are about the size of a grain of wheat) and carrying them about attached to a group of nipples low on the belly until they are quite big. Unlike many marsupials the female phascogale does not have a pouch. This particular species usually nests in a tree hollow or rock crevice. They are very active and agile tree climbers and live mainly on insects. They are almost exclusively nocturnal and so are seldom seen except when brought in by a cat. The Brown Phascogale is very common in timbered country right through southern Victoria, from the coast up into the Divide, but no further inland. Despite this wide range it is not well known, even to people who live in the bush".

Soon after finding the first two, we found another Phascogale, drowned in the milk for the poultry. We did not find any more until recently when we caught one in a trap (baited with bacon) in the house. However, our mouse-trap is now one that doesn't kill the mice, it only traps them. So far, of course, we have only trapped ordinary mice.

----- Bon Thompson -----

SPINEY ANTEATERS: by Mr. Jim Peterson.

Rambling through the bush frequently brings forth the unexpected. This of course makes rambling such a delight. The sighting of a spiny ant-eater is one such delight, and presents the opportunity to study the habits of our animals, and to take some coloured slides.

It was noted that this *Tachyglossus aculeatus* was proceeding generally in one direction - toward the sinking sun. Circling him and waiting for him to come seemed the way to get the best results. The camera was set up, and onward came 'Tachy', rooting under big logs, turning over small pieces of wood and stones, constantly plunging his snout down holes in his quest for ants. How many he found is difficult to say, but at least two bull ants were seen to make their escape through his spines. His progress could be heard by the overturning of stones etc., and by a series of snuffles and snuffles.

Click went the shutter, and our friend went to earth. After a number of slides a pattern of movement evolved. At the first disturbing sound he went to earth, gave several quick scratches and presented himself as a mound of spines. Looking carefully you could see an ear just above ground level. He was no doubt listening for more unfamiliar sounds. No further disturbances within a few minutes and he would be on his way. If there were, he would scratch deeper, burying his ears and leaving only the top of his back exposed.

After one double disturbance the dry leaves near him were seen to be moving. This was found to be caused by him lifting them slightly with his snout. This could just be seen through the crack, twitching, no doubt smelling out the situation. Some minutes later he resumed his fossicking.

As time was slipping by and I had finished taking slides I thought of one last experiment - instead of moving off as he approached I would hold my ground. I'm afraid that the author lost control of the situation when ol' spiney tried to find some ants under his foot. The resulting laughter could be classified as a major disturbance. Our friend was left still digging in some very, very hard ground.

Reflecting on the events it would seem that spiny anteaters have a keen sense of hearing. Their sight seemed poor as I was able to make adjustments to the camera only a few feet away from him. Provided there was no noise associated with the movement he was undisturbed. With regard to smell, it seems that he was able to smell out ants nests, and that he appears to have been smelling for a source of disturbance. Yet, if smell is critical, why did he move up to and then try digging under a human being?

----- Jim Peterson -----

EXCURSION TO WARATAH BAY: by Miss Betty Kemp (with a nudge from Mrs. E. Lyndon) 26th. March 1966.

We were fortunate to have another fine day (warm sunshine, cool wind) for the March excursion. After meeting at Meeniyan where one of our leaders, Mrs. Lyndon, joined us, we hied ourselves to Shallow Inlet on the east side of Waratah Bay, driving along the firm beach to Sandy Point. Here, from the top of a high lone sand dune, we had a magnificent view across the Inlet to Wilson's Promontory and its islands, and west around the Bay to Cape Liptrap. With the tide out there was a wide expanse of sand both inside and outside the Inlet, the dune (as an extension of the land and a natural barrier) providing the dividing line between the two. And two very different pictures they made. Inside was firm flat sand uncovered by the tide, boats sheltering in the narrow channel and seagulls aplenty. Three solitary birds, larger and darker, fed further out. But on the dune and looking south across the stretch of sand forming Sandy Point, one could imagine oneself in the desert - a plain of dry windswept white sand, wind carved into many shapes, with smaller dunes forming toward the sea. With only sky, sea and sand for comparison, it was difficult to judge the distance across the expanse.

Marram grass (Ammophila arenaria) had been planted on the dune tops to help hold the sand. This grass is a native of Europe, introduced to many countries for its sand binding uses. Also serving the same purpose was the Hairy Spinifex (S. hirsutus) which has long cane-like runners and globular seedheads that blow along in the wind. reminding one of the 'tumbling tumbleweed' of the U.S. desert lands.

Thick coastal vegetation extended along the sheltered (Inlet) side of the dune and along the Inlet shore, with a few rather hard pressed shrubs finding footage on the dune top itself. Coast Tea-tree (*Leptospermum laevigatum*), Coast Wattle (*Acacia sophorae*), and Coast Banksia (*B. integrifolia*) with its large yellow brushes provided shelter for lesser shrubs and plants - Coast Beard Heath (*Leucopogon parviflorus*), Coast Daisy Bush (*Olearia axillaris*) with fine steel-grey foliage up the long branches and small flowers at the axils of the leaves; the Coast Correa (*C. alba*) whose waxy white flowers are not bell-shaped as with the other Correas, the petals being pointed and separate and turned back.

Everlastings were represented by the Coast Everlasting (*Helichrysum cinereum*) with its dense cluster of small whitish flowers at the branch ends, and *H. rosmarinifolium* with its rosemary-like foliage (and aromatic too). Climbers included the Climbing Lignum (*Muehlenbeckia adpressa*) with large dark shiny leaves, and the delicate Small-leaved Clematis (*Clematis microphylla*). Spread about were the edible succulent New Zealand Bower Spinach (*Tetragonia implexicoma*), the mat-like Kidney Weed (*Dichondra repens*), and the Sea Celery (*Apium australe*), reminding one also of Parsley.

Adding to our list were the hardy Sea-box (*Alyxia buxifolia*), a spreading shrub often found on exposed cliffs; the mauve-flowered Sea Rocket (*Cakile maritima*), and the pretty Pea (*Swainsonia lessertifolia*) with its royal purple flowers. Finally, two *Senecios* - the Coast Groundsel (*Senecio spathulatus*), and the introduced *Senecio elegans* with its clusters of handsome red-purple daisy flowers with yellow centres.

After lunch the party moved on to what is known as The Gap, further west on Waratah Bay. Here part of the shore was lined with a double row of fine Banksias in bloom except where the constant erosion had depleted the ranks. Also gone was the old beach road, at one time the only access to the lime kilns at Walkerville, some concrete blocks on the sand, embedded with small shells, were remnants of this.

Flora was much the same as at Sandy Point. There were some magnificent golden brushes, Drooping Sheoke (*Cas. stricta*), and Sweet Bursaria (*B. spinosa*), while dotted along the sand like sentinel outposts (or perhaps rearguards) were clumps of the Sea Rocket with its pretty mauve flowers, obviously a plant much hardier than it looks. The shoreline was rocky in places, backed by steeply rising land deeply cut into by short creeks containing very tall specimens of Rough Tree Fern (*Cyathea australis*), Fishbone Fern (*Blechnum nudum*), Bat's-wing Fern (*Histiopteris incisa*), Rasp Fern (*Doodia media*), Shield Fern (*Polystichum proliferum*), and Maidenhair Fern (*Adiantum oethiospicum*). Progressive erosion had brought the ferns almost to the water's edge. The bush was very dense behind the shore, with *Melaleuca ericaefolia*, Coastal Manna Gum, Bursaria, Sheoke and lesser shrubs making it almost impenetrable to a human being.

Shells were not plentiful on this wind-swept beach, which was littered in places with great flat mounds of matted seaweed looking like the rocks which caught them. A dead squid about 18" long caused considerable interest to all its discoverers. Its long tubular body (prettily dappled in red, fawn and green) ended in a flat arrow-head tail (or fin) pointing in the direction in which the squid travels. At the other end

emerged the pinky-fawn head consisting of two large dark eyes, a beak-like mouth underneath, and ending in two long suckered tentacles with eight smaller ones between. The squid propels itself backwards by expelling water from its body, and when attacked it can also eject a dark ink-like substance to cloud the water and help it to escape.

The returning tide and lengthening shadows brought this excursion to an end and, on behalf of the Club, Mr. Belgraver thanked our leaders, Mrs. Brewster and Mrs. Lyndon, for a very happy day of discovery.

----- Betty Kemp -----

AN UNUSUAL FUNGUS: by Mrs. Ellen Lyndon.

On May 11th., during a period of very cold and wet weather there appeared in a Leongatha backyard a colony of rather rare fungus, the very showy *Anthurus archeri*. This striking member of the *Gasteromycetes* begins as a soft grey fungal body the size and shape of a bantam's egg, just below the surface of the ground. As it develops the 'egg' cracks and the long starfish arms unfold.

When called in to look at this strange growth I found that it grew in an area well tramped by a flock of muscovy ducks, on a patch where rubbish had been burned in previous years but not this summer. There was some weed growth, mainly self-sown *Pyrethrum*. The brittle red arms of mature fungi had been broken into pieces and lay scattered about like the aftermath of a crayfish party. The vase-shaped bases that had supported the arms still stood, each attached to the bottom of its gelatinous cup.

An immature specimen was unearthed and placed in damp moss in the hope that it might continue its development and provide us with a perfect specimen that could be photographed. We had achieved this end very successfully with *Aseroe rubra* earlier in the year. However, in the case of *Anthurus* the top of the sac was bruised and partly ruptured. It was thirty six hours before the tentacles unfolded and they were too brittle to support their own weight. They measured $5\frac{1}{4}$ inches when straightened. Blotches of dark brown sticky mucus stained their elegant redness, reminding us forcibly that this was another of the Stinkhorn tribe.

----- Ellen Lyndon -----

A NOTE ON SPARROWS: by Mr. Lance Galbraith.

Apropos of a recent note on blackbirds in the Newsletter - and apart from their song I have no more liking for them - here is a note about another introduced bird, the Sparrow. Although this bird made its appearance in the Traralgon area probably fifty years ago, it has not increased to the same extent that it has in warmer areas. However, since our garden has grown up somewhat, sparrows have been more in evidence, or at least have made longer visits. The result of this has been that two years ago we were able to give up spraying our roses - about seventy bushes - for aphids. While

yellow-tailed thornbills and silver-eyes have perhaps been even more diligent in their search for this pest, they are more infrequent visitors, and in the main it has been the sparrows that have controlled this greatest enemy of rose bushes.

----- Lance Galbraith -----

THE BIRD BATH: by Mrs. Ellen Lyndon.

An old plough disc lined with cement makes a very serviceable bird bath, being shallow and wide. Mounted on a nicely mottled drain-pipe it merges into a shrub border better than do some of the more elegant types specially made for the job. Less expensive too ! As we live opposite a waterless park the customers soon began to come for a drink and a bath. Not the little birds we knew at home, for a horde of hungry apparently ownerless cats roam the streets night and day, but the larger and livelier species. Wattle-bird and Thrush, Magpies and Mudlarks, sometimes a Willy-wagtail and once a delightfully Cranky Fan. This last one fell victim to a thoughtless boy with an air rifle. In time I made a larger disc-bath and placed at the foot of the other, my inspiration and ambition perhaps the fountain near Princes Bridge ! On several occasions since the lower bath has been full of splashing Sparrows while a very dignified Magpie made full use of the upper one. I would like to see all city and town parks and gardens equipped with safe watering places for the birds - they are so obviously appreciated in the heat of summer.

----- Ellen Lyndon -----

THE WONDERS OF STONEY CREEK: by Mrs. M. Hague.

Stoney Creek springs in the hills below Walhalla and I am sure it would be interesting to wander upwards to its source into the solitary wild country far away from any houses or roads. I have a few pleasant memories of this creek which is within easy reach of my home. One day in Summer four of us turned off the Seaton Road and followed a rough track through the timber till we came to the upper reaches of the creek. On looking into the clear water and colourful stones underneath, we saw a beautiful crayfish. He was too agile for us and vanished beneath the stones as if by magic. The colours of sky and greenery were vivid and were reflected in the water, and the multi-coloured stones had an attraction all their own.

The little blackfish darted out from under the fallen logs in the creek after the worms the boys dangled in the water. I sat alone enjoying the peaceful scene, resting my eyes on the fern covered gully opposite. Suddenly I saw a golden streak, and there was one of the most beautiful birds imaginable - the sun shone on its golden plumage as it hovered for some seconds with fluttering wings and outspread tail. That scene will always remain in my memory. The bird was the Rufous Whistler.

The lower reaches of the creek often become only seepage pools

----- LATROBE VALLEY FIELD NATURALISTS' CLUB. -----

OFFICE BEARERS:

President: Mr. E. Homann.
Senior Vice-President: Mr. J. Peterson.
Vice-Presidents. Mr. G.T. Scanlan, Mr. F. Jones.
Treasurer: Mr. E. McElroy. Assistant: Mrs. F. Kinniburgh.
Excursion Secretary: Miss Nancy Rossiter. Assistant: Mrs. L. Padfield.
Publicity: Mr. R. Stevens. Editor: Mr. G.T. Scanlan.
Secretary: Mr. S. Belgraver, 179 Lloyd Street, Moe.

OBJECTS OF THE CLUB:

1. The study, enjoyment and conservation of nature;
2. The encouragement of an interest in the various aspects of natural history;
3. The holding of regular meetings and arranging for suitable speakers;
4. The organising of excursions or field days.

MEETINGS OF THE CLUB:

General meetings of the Club are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m. The subjects for talks at general meetings are published in the monthly Newsletter. Visitors are always welcome.

EXCURSIONS:

Excursions of the Club are in the nature of field days to places of botanical interest, or to study the fauna or geology of an area, with competent leaders.

SUBSCRIPTIONS:

The Club annual subscription is 10/- for a single person, 1/- for juniors, and 15/- for a family. The subscription covers the monthly Newsletter.

NEWSLETTER: Contributions are invited from members for the Letter which is published monthly. They should be addressed to: Mr. G.T. Scanlan, L.V. C. Hospital, Yallourn.

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

It is well known that this function is increasing and concave down on the interval $(-\infty, \infty)$.

2. In the second part, we consider the function $g(x)$ defined by the equation

$$g(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt$$

It is well known that this function is increasing and concave down on the interval $(-\infty, \infty)$.

3. In the third part, we consider the function $h(x)$ defined by the equation

$$h(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt$$

It is well known that this function is increasing and concave down on the interval $(-\infty, \infty)$.

4. In the fourth part, we consider the function $k(x)$ defined by the equation

$$k(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt$$

It is well known that this function is increasing and concave down on the interval $(-\infty, \infty)$.

5. In the fifth part, we consider the function $l(x)$ defined by the equation

$$l(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt + \int_0^x \frac{1}{1+t^{10}} dt$$

It is well known that this function is increasing and concave down on the interval $(-\infty, \infty)$.

6. In the sixth part, we consider the function $m(x)$ defined by the equation

$$m(x) = \int_0^x \frac{1}{1+t^2} dt + \int_0^x \frac{1}{1+t^4} dt + \int_0^x \frac{1}{1+t^6} dt + \int_0^x \frac{1}{1+t^8} dt + \int_0^x \frac{1}{1+t^{10}} dt + \int_0^x \frac{1}{1+t^{12}} dt$$

It is well known that this function is increasing and concave down on the interval $(-\infty, \infty)$.

LATROBE VALLEY FIELD NATURALISTS CLUB



P R O T E C T

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P R O G R A M M E 1 9 6 6

Flying Duck
Orchid

President:
Mr. E.H. Homann,
11 Hennessey Street,
M.O.E.

Secretary:
Mr. S. Belgraver,
179 Lloyd Street,
M.O.E.

- Jan. 22 Excursion to Bennison High Plains.
- Feb. 25 General Meeting: Holiday Reminiscences.
26 Excursion to Philip Island: Penguins.
- Mar. 25 Photoflora '66.
26 Excursion to Waratah Bay District: Coastal Flora.
- Apr. 22 General Meeting: Mr. N.A. Wakefield - Mammals.
23 Excursion to Darlimurla: Forest Vegetation.
- May 27 General Meeting: Mr. R.N. Cromer - Economics of Eucalypt
Planting.
28 Excursion to A.P.M. Forests Nursery, Traralgon, followed by
Working Bee at Traralgon South Reserve.
- June 24 General Meeting: Mr. Graham Pizzey - Subject to be announced
25 Excursion to South Cascade Creek area.
- July 22 General Meeting: Miss Jean Galbraith - Australian Carnivorous
Plants.
23 Excursion to Tyers District.
- Aug. 26 General Meeting: Miss Ina Watson - Mammals.
27 Excursion to Colin McKenzie Sanctuary, Healesville.

- Sept. 11 Excursion to Gormandale South:- Wildflowers.
23 General Meeting: Messrs. Homann and Peterson -
Orchids.
24 Excursion to Ricardo's Road, near Mirboo North.
- Oct. Excursion Weekend to Buchan area; Dr. John Tallent
invited to be the leader and to give a talk about
the geology of the Buchan District. Final date
to be decided upon by the leader.
28 General Meeting: Mr. Frank Jones - Birds and Bird
Banding.
29 Boat trip on Thomson River.
- Nov. 25 General Meeting: Member of Gemmological Society on
"Semi-precious Stones in Victoria and especially
Gippsland".
26 Excursion to a locality to be advised by the
Society.
- Dec. 18 Excursion to Foster's Gully (afternoon).

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If needing transport for any excursion, please contact the following at least two days before the excursion:

Traralgon:	Mr. T. Moretti	Traralgon 7.2423.
Morwell:	Mr. J.M. Peterson	Morwell 4.2129.
Yallourn:	Mr. G.T. Scanlan	Yallourn 5.2111.
Noe:	Mr. E.H. Homann.	

LATROBE VALLEY FIELD NATURALISTS CLUB

Our aim is to promote an interest in native plants, birds and animals, geology and marine life, and to assist in the establishment of nature reserves.

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Our general meetings are held on the fourth Friday of each month at the Yallourn State School, starting at 7.30 p.m. After the business meeting, a talk is given, usually illustrated by slides or movies.

An excursion is held on the following day, Saturday.

Our annual contribution is 10/- for a single person, 1/- for juniors and 15/- for a family.

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The following persons will be pleased to give you more information about our activities:-

REP	:	Mr. E.H. Homann, 84 Hennessy St.	
SECRETARY	:	Mr. J.H. Peterson, 14 Barry St.	Phone: 4.2129.
TREASURER	:	Mr. T. Moretti, 130 Prince St.	" 7.2423.
EDITOR	:	Mr. G.T. Scanlan, C/o Hospital.	" 5.2111.

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LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

LATROBE VALLEY FIELD NATURALISTS' CLUB.

NEWSLETTER

JUNE 1966.

ISSUE NO. 31.

Editor: G.T. Scanlan, L.V.C. Hospital, Yallourn, Victoria.

Dear Fellow Field Naturalists,

General Meeting, Friday 24th. June 1966:

The speaker at the June meeting is to be Mr. Graham Pizzey, well known to naturalists and others interested in our native fauna, not the least for his interesting and informative articles which appear in the 'Herald' each week. The subject is to be of his choosing, and there is no doubt that the talk will be of great interest and value to us all.

Excursion Saturday 25th. June 1966: Excursion Secretary Mrs. Lorna Padfield.

The excursion is to be to the South Cascade Creek on the Thomson Valley Road. It will be primarily to observe birds, under the leadership of Mr. Pizzey, but birds, fungi etc. will also be studied.

Members are asked to meet at Parker's Corner, on the Walhalla side of Erica township at 9.30 a.m.. Members desiring transport should make their usual contacts in the respective towns in good time before the day of the excursion.

As there might be some clearing necessary at the reserve, members are asked to take a few tools, such as axes, spades etc..

The August Excursion:

The excursion on Saturday the 27th. August is to the Healesville Sanctuary. Members intending to take part should contact the Excursion Secretary in order that arrangements may be made for a bus if there is enough support. Address of Mrs. Padfield is 42 Strzeleckie Rd, Yallourn, 'phone 52 581. Fares for this excursion will be as follows:-

Adults.	\$1.50.
15 - 21.	\$1.00.
Under 15.	.50c.

Koala Count Moondarra Reservoir:

A koala count is to be made in the reservoir area on Saturday 2nd. July. Members interested in assisting Mr. Roberts, Wildlife Officer, should be at the parking area near the spillway, at the Moondarra Reservoir at 9.30 a.m.. There will be a further reference to this matter at the June 24th. general meeting.

--- L. Padfield ---

Executive Meeting 6th. June 1966;

This was held at the home of Mrs. Padfield, Yallourn, and among the matters discussed were the following;-

Hazelwood Arboretum:

A meeting of representatives of the Morwell Horticultural Society and this Club was held at the home of Mr. Bob Auchterlonie, and agreed that an Arboretum Committee should be formed for the purpose of replanting where necessary and maintaining the Arboretum. It is expected that it will be the responsibility of the Committee, subject to the two organisations represented, to make any arrangements necessary for the proper organisation of the still extensive work involved.

Programme for the Year 1967:

Although 1967 may seem to be a long time away, preparation of a programme is a long-term matter if it is to be effective from the point of view of members. After considerable discussion, a tentative programme was adopted, and approaches are now to be made to prospective speakers and leaders of excursions. It is hoped that publication of the programme will be possible before the end of the current year.

Next Meeting of the Executive:

This will be held at the home of Mr. & Mrs. Jim Peterson at 43 Barry Street, Morwell, on Friday 1st. July at 7.30 p.m...

CONSERVATION:

The focal point and ultimate aim of all our activities as members of the L.V.F.N.C. is conservation - the preservation, as far as it is possible and reasonable, of the native flora and fauna, and the natural features of Victoria. Conservation has been variously defined, with greater or lesser accuracy and clarity, and perhaps some of us are not quite clear as to its implications. An editorial by Mr. A. Dunbavin Butcher in the current quarter issue of 'Victoria's Resources' may therefore be of interest and assistance. It is reprinted below.

'CONSERVATION IS NOT ...

Conservation is "in" and, even although it is not fully understood, this is good. Conservation is not concern for the welfare and protection of an individual animal; it is not the planning of a road-side tree; it is not the building of a farm dam; it is not the restoration of an eroded gully although this is getting nearer the truth. All these things are important and worthwhile but too many people believe that, having achieved or supported one of these actions, conservation is in course. Far too much effort is expended on these matters - direction, real purpose and co-ordination are missing and conservation suffers. Conservation cannot be segmented.

We live in an affluent society in which the demand for goods and services is rapidly rising and this^{is} being matched by the necessary technical skills. These same skills produce conservation problems because they also are not co-ordinated - there are too many water-tight compartments.

If we talk of conservation of wildlife this is, per se, conservation of the environment, of all the natural resources and of man himself. If conservation of all the resources is not planned, then conservation of wildlife is not possible.

Of fundamental importance is the fact that conservation does not preclude utilisation and of the large number of definitions which have been produced over the years, to me it has been defined best as "the maintenance of the natural world in a state of physical and biological balance which promises to serve the foreseeable needs of mankind". Utilisation on a planned basis which will permit sustained use without loss of, or to the detriment of, the source'.

--- A. Dunbavin Butcher ---

SOME FUNGI SEEN AT DARLAMURLA: By Mrs. Ellen Lyndon.

To travellers speeding along the roads the Victorian bush in Autumn must seem very dull and colorless with its subdued grey-greens and browns, so different to the pageant of Autumn presented by the deciduous trees from other lands. For those who have the time and inclination however to stop and look more closely, the bush after the first Autumn rains can be full of delights and surprises and color too, for this is the time when the mosses and lichens and liverworts come to life again, and fungi of every shape, color and habit adorn wood and earth.

The day is not far distant when all of our South Gippsland bush will be ruthlessly swept away and the dark wall of the pines will line the roadsides, so let us go out and discover what we may while there is yet time.

Our Club outing to Darlamurla was certainly not lacking in interest or excitement and many were the finds among fern and foliage that were new to us. The fungi tribe were a constant delight and under the leadership of our enthusiastic local guides, both senior and junior, we visited different habitats and saw many things. Perhaps the most interesting was a clump of puffballs growing in the side of a stump hole in gravelly soil. These brownish 'pressure-pak puffers' each sprang from a rubbery basal cup, the stem being a coarse openwork of brown fibres surmounted by the small box of spores that emerged from soil and leaf mould. In the centre of each fruiting body was a six-pointed star device bright orange in color. Through the centre of this the spore dust was fired at the slightest pressure on the cap. On examination we found the tiny orange star repeated in the bottom centre of the basal cup. Photographers had a field day on this one,

Another dainty gem was Aleuria aurantica, probably of world wide distribution, for many books show it nestling under a log in disturbed soil at the creek side. Like scraps of brilliant orange-peel the colony lay scattered over the bare soil among the first green tinges of moss and liverwort. These are said to puff out clouds of spores with an audible hiss when conditions are right. Orange Elf Cup seems to be a good name for this pretty species. The Vegetable Caterpillar was found in the loose mould under a Silver Wattle. Fungal threads sometimes enter the pupating wattle grubs, Oxycanus, killing the host and replacing its tissues, eventually sending up a club-shaped body that ripens and distributes the spores. Our specimen was the common one, Cordyceps Gunnii, but there are other forms that infest different insect larvae.

In the forest many of the bracket types of fungus were in evidence. The White Punk, Polyporus portentosus, is the common cause of heart rot in gum trees. Fistulina hepatica, the Ox-tongue or so-called Beefsteak fungus, oozed pinkly from cracks or formed thick bodies on old stumps. The first name is undoubtedly the best, as this fungi is uncannily flesh-like, the wrinkled brown skin on the upper surface is loose and moves freely at a touch. The flesh-pink under parts are composed of close packed but unjoined tubes that look and feel like ox tongue. This one had long been praised as an article of food in other countries. We must try it sometime! Schizophyllum is easily recognised and remembered. A series of tough grey fans that ornament rotten sticks or logs. I noticed Tremellodon, the Jelly Hedgehog, gelatinous and nearly transparent but fairly tough to handle. It forms a cluster of small brackets notable in that the undersides are neither gilled or pored, but are covered with nobby little points or spines that look like water drops. In other places were clumps of that frilled and quivering jelly whose name escapes me.

The Boletus family are not gilled but may be recognised by their pored under-surface. One very ornamental form is common just now with wine-red cap and stem and gills of a yellow-green. The huge brown-green one that sometimes attains enormous dimensions is Boletus edulis, said to be excellent eating.

Fine grey threads often observed in forest debris knitting the leaves and sticks together belong to a member of the Coral fungi or Clavarias. A strong glass will reveal the tiny toadstool caps on the end of each thread. The Horse-hair fungus is somewhat similar but the threads are black. Its name? Marasmius equicrinus, and its nearest relative here is the tawny Champignon or Fairy Ring of lawns and parks that smell like almonds or prussic acid and are delicious fried in butter, M. oreades. Others of the Coral fungi are the much-branched pink or orange 'cauliflowers' called Ramaria. Use as above!

My particular thrill for the day was two beautiful specimens of the Chanterelle, variety Australiensis, in the dense rain forest of the gully opposite the big tree. They were mature specimens, almost hidden under the deep litter of the bush floor. Of a glowing apricot-orange, smooth capped but with a depth of color seen only in velvet. Stem and gills were of paler tints. The caps turned up somewhat trumpet-wise. Mr. Willis in his handbook says it is by no means common here but by checking over and over with my five sources of information, which include a Danish and an American publication, I feel reasonably certain that this was indeed our local representative of a famed edible species. Lest I seem too preoccupied

with eating in my efforts to unravel some of the mysteries of fungus identification let me explain that most writers have comment to make on the food value of the fungi. In times of war or famine considerable investigation has been done to determine which might have food value for man or animals. John Ramsbottom of the British Museum considers that about ninety per cent of all deaths from fungus poisoning are due to one Amanita, A. phalloides, which has not been recorded as yet in this country.

Notes on the fungi would not be complete without mention of the spectacular Amanita muscaria, introduced to this country with pines or other imported trees. In the half light under the dark canopy of the trees it glows pillar-box red while the gills and stem are ivory-white. Looking against the light we watched a big one ejecting clouds of white spores into the humid air. This beautiful toadstool is not the most dangerous of its clan. In some parts of the world it has value as a producer of visions or hallucinations when small portions are eaten, somewhat in the nature of those induced by the drug hashish. Growing with it under the pines was another Amanita, possibly A. ochrophylla, with scaly bulbous stem capped by a tiny tilted 'Chinaman's Hat'. A. muscaria was reported for the first time from Gippsland only a few years ago, but I think it very likely that the species has been long established under homestead pines at Darlamurla.

--- Ellen Lyndon ---

DAYS WITH AN ACTIVE VOLCANO: by Mr. E. Homann.

North of New Guinea lies a weak part of the Earth's crust, and many of the islands in this area have been formed by volcanic action and are now dormant or, in some cases are active volcanoes. One such active volcano is Manam Island, some 100 miles north of Madang and about 12 miles off the mainland of New Guinea, so, when I was offered a fortnight's trip to this island on the motor work-boat 'John K' I was eager to go though the 25' length of the boat and the open sea ahead gave me some second thoughts.

Arriving off Manam Island one was immediately impressed with its massive size rising over 4000' in a perfect cone of about 8 miles diameter. The island was thickly wooded from water level, the lower slopes being mainly coconut palms, while jungle-growth covered the middle section, the topmost section being bare.

Periodically what appeared like dust and smoke in the clear light of the day were thrown from the summit high into the sky. From the summit a steep bare gully ran down almost to the sea, and this was the path of the lava flow. The scene at night was more spectacular as the continuing eruptions shot fire, smoke and incandescent rock high into the air. Each eruption was accompanied by a heavy boom followed by a steady rumbling, and this tended to be somewhat unnerving when the eruptions continued one night at 15 second intervals. A trip along the island in the night showed the upper reaches of the steep gully glowing with its lava flow.

There is a fairly large native population on Manam Island and it

was fascinating to watch them going about their daily village life. The men clear jungle areas to form gardens where the women grow the basic foodstuffs - sweet potatoes, taro and bananas. The men build the houses of bamboo and palm leaves, but the women do all other work in the villages. Coconuts are gathered and the meat sold to the store to become copra when dried. At the store they buy rice, sugar, tea and similar luxuries. They take the presence of an active volcano for granted, but an observatory is maintained with a native technician in charge, and his instruments tell of abnormal activity and, in the event of extreme danger, the population would be evacuated to the mainland. Quite a job I would think as there are some 8000 natives, and the only white people are the fathers and nuns of a Catholic mission established on the island.

A fascinating place Manam Island, with its black gravelly beaches, luxuriant vegetation, cheery native people, and over all the plume of smoke from its active volcano !

--- Ern Homann ---

MAGPIE 'SINGS' GALAH: by Miss B. Kemp.

On my sisters' property at Launching Place, which is open cultivated land surrounded by deep bush between two mountains, three magpies (Parents and child), have taken up sole magpie tenant rights. In addition, the young magpie, overhearing my sisters complaining about the Lowries etc. damaging the fruit in the orchard, has taken on the job of chief protector of the orchard and chases away all other birds who dare to enter there. Down by the house he will feed amicably enough with the Jays (both black and grey) and the Lowries, but not in the orchard - could it be because house food seems unlimited whereas orchard food is not ?

Recently, a young Galah carrying a leg chain was rescued from the magpies and placed under protective custody. It was very tame, quite at home in the house, and very attached to one of my sisters who compulsively feeds all animals and birds on sight. The galah was placed in a make-shift cage in the sun near where my sister was sitting doing some book work, when the young magpie went up to the cage and started warbling softly to the galah which responded with bobbing, dancing up and down and crest raising. The magpie kept up this beautiful soft warbling for about 15 minutes, walking around the cage now and then, and then flew off to a nearby blackwood where one of its parents had flown to keep an eye on things.

We don't know what the magpie was saying, but the next day the galah would not come down from his night-time perch on the hot water pipe under the back porch roof, remaining there all day with his head tucked under his wing. We are wondering if the magpie 'sang' him, or warned him off the property, staking his claim. Unfortunately, I had to return to Yallourn that day and have not heard the sequel to this incident.

--- Betty Kemp ---

The following report by Mr. Frank Jones is reprinted from the Victorian Ornithological Research Group Notes of March 1966.

CENTRAL GIPPSLAND - BANDING AREAS. No.1. Stony Creek, Cowarr.

This is the only one of these sites where banding is done regularly (every 4 or 5 weeks) and there is considerable variation of bird life here according to seasonal conditions. Last year, during the flowering of the Red Box from July to the beginning of October there were many White-naped, New Holland and Crescent Honey-eaters. Later in the year although a few New Hollands stayed on, the White-napes and Crescents disappeared from the area, and as these birds seemed to be in travelling flocks, I was hoping to retrap some of them at my other banding sites.

The sedentary birds such as the Blue Wrens, White-browed Scrub-wrens and Yellow Robins at this site are providing interesting study, and overall I get about 10% retraps including some banded by V.O.R.G. members in October 1964. The most numerous species here at present are the Silver-eyes and Red-browed Finches.

No. 2. Eaglehawk Road.

An area with small patches of Banksia where some winter banding was tried with moderate success. Also in this area are some promising gullies for Whipbirds, Ground Thrushes, Pilot Birds and the like, but not much has been done here.

No. 3. Rifle-range Road.

Site of my 1965 winter camp to which I attracted a fair number of birds by keeping food spread around for them for several months. The most interesting birds caught here were the Olive Whistlers and the Grey Butcher-birds.

No. 4. Old Gould Township.

This is in the Latrobe Valley Water and Sewerage Board's reserve area, and to enter permission from the Board must first be obtained. Being a reserve this area has the added advantage in that in the interests of erosion control the natural vegetation will not be disturbed.

Here there is a large colony of Yellow-tufted Honeyeaters. Although these birds are common in some parts of Victoria, in this district they seem to exist mainly in isolated colonies, and there is no apparent reason why they should thrive at this site and not in the surrounding areas.

No. 5. Moondarra Dam.

This site is also in the reserve area. Not much banding has been done here but the location seems ideal for general banding.

No. 6. 10 Mile Post, Erica Road.

Prior to last November, when the main area was burnt, this was an extensive patch of Banksia at which Honeyeaters, mainly Spinebills, Crescents and New Hollands, were banded in August. Although the main feeding area for the birds will take some time to regenerate, some banding will be done here next winter in the hope that when the Honeyeaters return they will be concentrated in the remaining Banksias, and that it will be possible to net them in greater numbers. This area, although unfenced, is on the boundary of the Latrobe Valley Water & Sewerage Board's prohibited area, and to be on the safe side permission should be obtained before banding here.

No. 7. Firms Track.

I have not been very successful when mist-netting in heavily timbered country such as at this site, but here I have managed to band reasonable numbers of birds by setting my nets around a spring during dry weather. At this time of the year many of the gullies are dry except for a few pools where the springs rise up near the head of the gullies, providing the only water for some distance. These places although often difficult to get to with mist-nets may provide the solution to banding birds in this kind of country. At this spot I banded, among others, Lewin Honeyeaters, Shriketits, Spotted Pardalotes and Rufous Fantails.

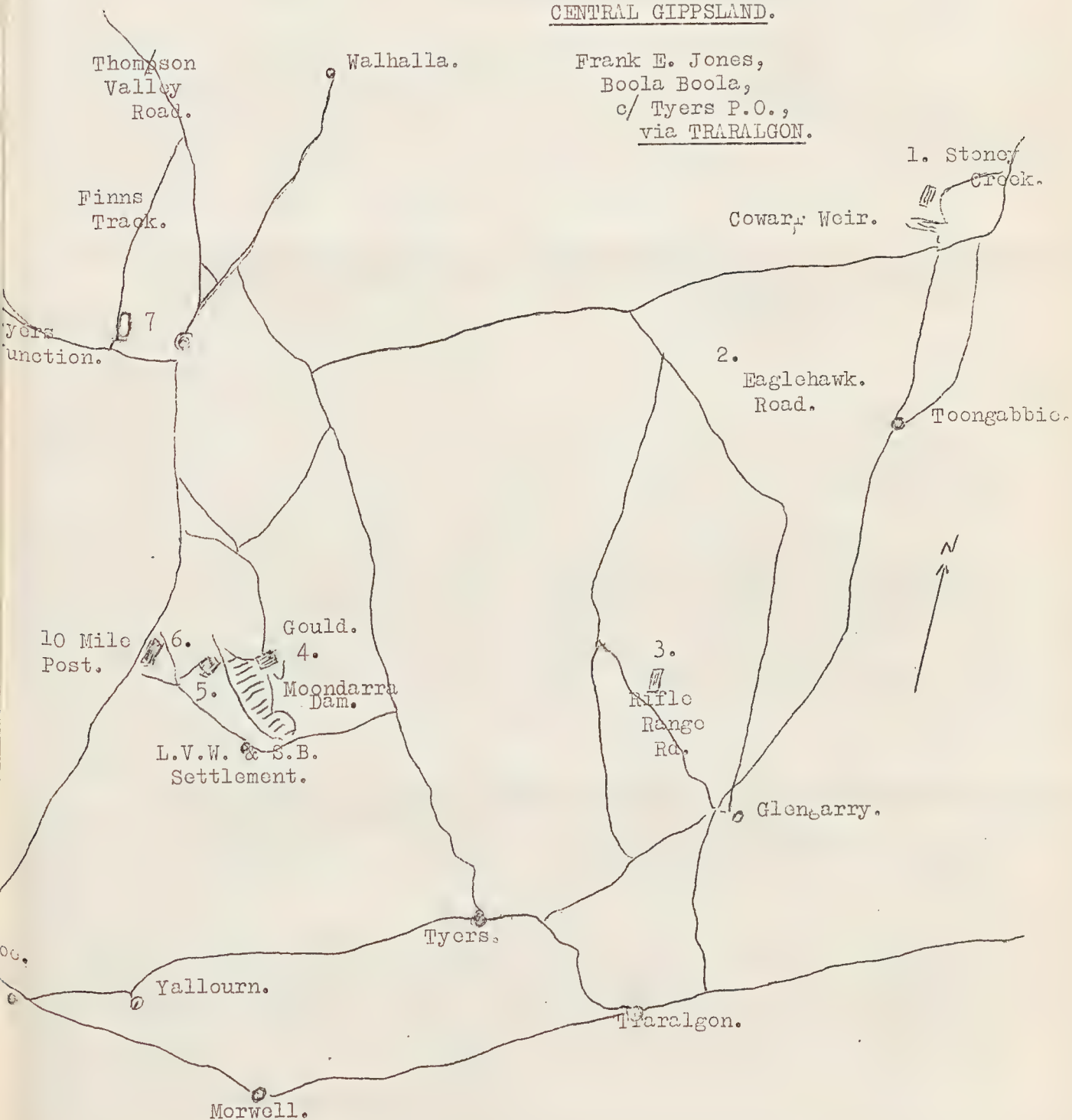
These banding sites represent a very sketchy coverage of quite a large area. However, it is hoped that they may serve as a starting point for banding in this district.

The map on page 9 indicates the positions of these above numbered sites.

--- Frank Jones ---

THE ECONOMICS OF EUCALYPT PLANTING: Report of a talk by Mr. R.N. Cromer, A.P.M. Forests, on Friday 22nd. May 1966, by Miss B. Kemp.

This night we welcomed an 'enemy' into our camp in the form of Mr. Cromer of the A.P.M. Forests Research Section at Traralgon who, at the end of the business part of the meeting, gave an interesting and informative illustrated talk on the work of A.P.M. Forests. Mr. Cromer was quick to point out that some Australian wildlife appear to have adjusted to the 'pine forest deserts' which his Company look upon as 'tree farms', and added that his section collaborated with the Commonwealth Forests Research Institute to which Mr. Ken Eldridge, a Past President, was attached.

REGISTERED BANDING AREA NO. 7.CENTRAL GIPPSLAND.

A.P.M. Forests were set up in 1950 to obtain land and plant trees for pulp within an economic distance of the Company's Maryvale pulp and paper mill. The 1939 bush fires had killed much of the parent timber but had regenerated the seed and new forest had sprung up. It was the practice to use only thinnings for pulp and leave the rest to mature for log wood.

The Company leased a certain amount of land from the Forests Commission and also purchased old worked out farming country on which pine nutrition research had to be done. *Pinus radiata*, a northern hemisphere softwood, and Mountain Ash (*E. regnans*), a southern hemisphere hardwood, were considered the best trees for pulpwood in Victoria. At Maryvale about 75% of the pulp was from eucalypts. The practice is to plant Mountain Ash on the south facing slopes and in the valleys, and *Pinus radiata* on the tops and northern slopes which will not support the former so well. In 1966 it is planned to plant 500 acres of eucalypts in the Jeeralangs, increasing to 1000 in later years.

Economically, pine planting was relatively cheap compared with eucalypt planting which needed more care - tube planting was necessary which was bulky and expensive, the plants first being raised in an open seed bed and then pricked out into the tubes. However, they are now using 'Jiffy' pots made of peat moss and wood pulp and imported from Norway. These allow the roots to grow out through the walls, so do not need to be removed on replanting and make bulk handling much easier and safer. An 80% strike is expected in the field, depending on conditions.

Some excellent slides showed the growth of young Mountain Ash trees which averaged 65' after 8 to 9 years. Mountain Ash are ready for pulping at about 8 years and *Pinus radiata* at about 10 years. In some areas Wattles, which are nitrogen fixing, can improve the site but can choke out the eucalypts if allowed to grow too thickly.

The obtaining of eucalypt seed has its difficulties, as it is necessary to fell the mature trees to obtain the heads or crowns which carry the seed capsules. Young plants have to be fairly heavily thinned out so that crowns will grow better to produce seed. Capsules must be dried out in order to release the seed which is then washed and placed under refrigeration to break dormancy.

On the question of balance between conservation and industry, Mr. Cromer considered that this was a Government responsibility, and that there was a need to set aside areas to preserve each ecological type.

On behalf of the Club Miss Galbraith thanked Mr. Cromer for his very interesting talk and agreed with him that it was necessary to type the whole of Victoria and set aside the appropriate areas for preservation. We looked forward to visiting the A.P.M. Forests Nursery at Traralgon the next day.

--- Betty Kemp ---

(Miss Kemp's notes on the Nursery visit will appear in the next issue of the Newsletter. (Ed))

----- LATROBE VALLEY FIELD NATURALISTS' CLUB. -----

OFFICE BEARERS:

President: Mr. E. Homann.
Senior Vice-President: Mr. J. Peterson.
Vice-Presidents. Mr. G.T. Scanlan, Mr. F. Jones.
Treasurer: Mr. E. McElroy. Assistant: Mrs. F. Kinniburgh.
Excursion Secretary: Miss Nancy Rossiter. Assistant: Mrs. L. Padfield.
Publicity: Mr. R. Stevens. Editor: Mr. G.T. Scanlan.
Secretary: Mr. S. Belgraver, 179 Lloyd Street, Moe.

OBJECTS OF THE CLUB:

1. The study, enjoyment and conservation of nature;
2. The encouragement of an interest in the various aspects of natural history;
3. The holding of regular meetings and arranging for suitable speakers;
4. The organising of excursions or field days.

MEETINGS OF THE CLUB:

General meetings of the Club are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m. The subjects for talks at general meetings are published in the monthly Newsletter. Visitors are always welcome.

EXCURSIONS:

Excursions of the Club are in the nature of field days to places of botanical interest, or to study the fauna or geology of an area, with competent leaders.

SUBSCRIPTIONS:

The Club annual subscription is 10/- for a single person, 1/- for juniors, and 15/- for a family. The subscription covers the monthly Newsletter.

NEWSLETTER: Contributions are invited from members for the Letter which is published monthly. They should be addressed to: Mr. G.T. Scanlan, L.V. C. Hospital, Yallourn.

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1965 A.I.D.A. MEDAL



PRESENTATION TO
J. R. NICHOLAS, B.Sc., B.Ed., M.A.C.E.

AUSTRALIAN INDUSTRIES DEVELOPMENT ASSOCIATION

with the

SCIENCE TEACHERS' ASSOCIATION OF VICTORIA

1965

A.I.D.A. MEDAL PRESENTATION

FRIDAY, 15th JULY, 1966

SHAW'S BALLROOM, MOE.

PROGRAM

Dr. R. G. ROWLANDS, President, S.T.A.V. , CHAIRMAN.
(Scotch College)

to welcome

Dr. P. G. LAW

and introduce

Mr. F. M. WILTSHIRE, President, A.I.D.A.
(Managing Director, Wiltshire File Co.)

to outline the purpose of the Award.

Mr. A. H. RICHARDS, Referee, A.I.D.A. MEDAL
(Headmaster, Murrumbidgee High School)

to read the

C I T A T I O N

1965 A. I. D. A. MEDAL

Dr. P. G. LAW, Vice-President, Victoria Institute of Colleges

to make the

PRESENTATION OF THE 1965 A.I.D.A. MEDAL

to

Mr. J. R. NICHOLAS, Senior Science Master, Moe High School

to speak on

" BUT WE HAVEN'T EVEN STARTED "

Mr. F. MCUNTFORD, Past President, Gippsland Branch, S.T.A.V.

to move the

VOTE OF THANKS

seconded by

Mr. K. CLARKE, Acting Headmaster, Moe High School.

OFFICIAL GUESTS

GUEST OF HONOUR:

Dr. P. G. Law (Vice-President, Victoria Institute of Colleges)

A.I.D.A. REPRESENTATIVES:

Mr. F. M. Wiltshire	(President, A.I.D.A.)
Mr. C. Puzey	(Director, A.I.D.A.)
Dr. E. Barroclough	(Deputy Managing Director, Monsanto Chemicals)
Mr. M. Moore	(A.I.D.A.)

DISTINGUISHED GUESTS:

Mr. R. A. Reed	(Chief Inspector of Secondary Schools)
Councillor E. Scott	(Mayor, City of Moe)
Mr. K. M. Clarke	(Acting Headmaster, Moe High School)

FORMER RECIPIENTS OF A.I.D.A. MEDAL:

J. J. Martindale	1960	(Deputy Headmaster, Wesley College)
E. D. Gardiner	1961	(Melbourne Grammar School)
R. H. Wilkinson	1962	(School of Physics, University of Melbourne)
W. A. Lang	1963	(Senior Science Mistress, Firkbank)
D. S. Lugg	1964	(Ministry of Education, Basutoland)

RECIPIENT OF 1965 A.I.D.A. MEDAL:

J. R. Nicholas	(Moe High School)
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REFEREES FOR 1965 A.I.D.A. MEDAL:

Professor W. H. Frederick	Apology received (Melbourne University)
Mr. J. D. Norgard	Apology received (A.I.D.A. Representative)
Mr. A. H. Richards	(Headmaster, Murrumbidgee High School)
Mr. E. D. Gardiner	(Melbourne Grammar School)
Mr. J. J. Martindale	Apology received (Deputy Headmaster, Wesley College)

SCIENCE TEACHERS' ASSOCIATION OF VICTORIA REPRESENTATIVES:

Dr. R. G. Rowlands	(President)
Mrs. R. Wilkinson	(Vice-President)
Dr. D. Cohen	(Vice-President)
Mr. R. Wilkinson	(Secretary)
Mrs. M. Tatchell	(Administrative Secretary)
Messrs. Dale, Grainger, Trembath, Rowlands, Turner	(Councillors)
Mr. C. W. Lewis	(President, Gippsland Branch)
Mr. B. Collins	(Secretary, Gippsland Branch)



THE A.I.D.A. MEDAL

PURPOSE OF THE AWARD:

The AUSTRALIAN INDUSTRIES DEVELOPMENT ASSOCIATION Science Education Award, known as the

A.I.D.A. MEDAL

is awarded annually, to a science teacher who, in the opinion of the Referees, has contributed substantially to science teaching in Victoria. Similar Awards are made in all other States.

The Award is a very high professional distinction, conferred on the recipient in recognition of his achievements.

It is hoped that the making of the Award will stimulate science teaching in Victoria in the following ways:

1. By giving recognition to a limited number of teachers who have made substantial contributions to science teaching.
2. By making public the evidence upon which the Award was made to the recipient, and so encouraging the communication of ideas and techniques between teachers.
3. By encouraging the work of science teachers in the directions considered by the Referees to be of value to science teaching in Victoria.
4. By lifting the status of the teaching profession in the eyes of the general public.

ELIGIBILITY FOR THE AWARD:

The Award is open to all Victorian teachers who have taught science at some time in the five years prior to the year of their nomination, at any level(s), from Form I to Matriculation, or their equivalent.

EVIDENCE TO BE SUBMITTED TO THE REFEREES:

In support of each nomination for the A.I.D.A. MEDAL, the following evidence is submitted:

Each SPONSOR submits evidence to the Referees to show that

- A. The Nominee is an outstanding class teacher of science.
(This certificate as to the Nominee's capacity as a teacher in the classroom and laboratory, is regarded as essential.)

In addition, each Nominee submits evidence to indicate to the Referees:

- B. 1. Nominee's academic qualifications and training.
Nominee's teaching experience, with the experience of the past five years in detail.
Any particular features of the Nominee's teaching experience.
2. Nominee's experience on the academic side of science teaching - experience as an examiner, in curricula construction, teacher training etc.
3. Nominee's in-service training and studies - membership of professional and scientific societies; conferences, seminars and summer schools attended; private research work; scientific and/or educational journals read; special teacher interests; experience in design of laboratories and/or equipment; assistance given to other teachers and schools in this respect.

Satisfactory evidence of the Nominee's class and laboratory teaching is ESSENTIAL for the A.I.D.A. AWARD. But in addition, weight is attached by Referees to ways in which the Nominee has assisted fellow teachers. These may include some of the following:

- C. 1. Extra-curricular activities in science work carried out in the teacher's school by the teacher.
2. Science contributions to the local community.
3. Contributions to the Science Teachers' Association of Victoria, or allied associations.
4. Contributions to educational and/or scientific journals.
5. Other published work of the Nominee.
6. Lectures, addresses, etc. given in the Nominee's own school; to other schools; to the Science Teachers' Association of Victoria etc.; to other bodies.
7. Any other evidence the Nominee may wish to bring forward.
- D. Finally, the Nominee is requested to set out what he considers to be the most important features of his work over the past five years. In this summary, the Nominee sets forth the contributions to science education in Victoria, by which he (or she), would wish to be judged.

THE REFEREES:

The Referees' decision is based upon the written evidence submitted, supplemented where they consider necessary by;

- interviews with the Nominee;
- personal inspection of the Nominee's work;
- interview(s) with the Nominee's Principal or any other person(s) whom they consider may be of assistance;
- consultation with the Council of the Science Teachers' Association of Victoria, or any individual member thereof.

THE REFEREES MUST SATISFY THEMSELVES THAT THE RECIPIENT OF THE AWARD IS AN OUTSTANDING CLASSROOM AND LABORATORY TEACHER.

In view of the differing conditions of work in various schools and localities, the Referees reach their decision, not on the absolute standard of achievement, but give due weight to the relative difficulties the Teacher has had to contend with in carrying out his work. Such matters as adequate finance for work are not allowed to favour one teacher at the expense of another, although it is recognised that the teacher's performance may be in part due to his ability to convince others, such as School Councils, Headmasters, etc. of his ideas, and this is regarded in itself as a valuable addition to a teacher's equipment.

The Referees consider not only the teacher's contribution to his own pupils, both in the directions laid down by the syllabus and in the extra curricula activities he encourages in his pupils; but they give considerable weight to the teacher's contribution to his colleagues, both in his own school, and also to other teachers in Victoria and wider fields.

REFEREES FOR THE 1965 A.I.D.A. MEDAL;

Professor W.H. FREDERICH (Chairman), Department of Education,
University of Melbourne.

Mr. J. D. NORGARD, A.I.D.A. Representative.
General Manager, Operations, B.H.P. Co. Ltd.

Mr. F. H. BROOKS, Education Department Representative.
Director of Education.

The following are nominated by the Science Teachers' Association of Victoria

Mr. J. J. MARTINDALE, Deputy Headmaster, Wesley College, Melbourne.

Mr. A. J. RICHARDS, Headmaster, Murrumbeena High School.

Mr. E. D. GARDINER, Senior Science Master, Melbourne Grammar School.

PREVIOUS RECIPIENTS OF THE A.I.D.A. MEDAL

1960 J. J. MARTINDALE, Wesley College, Melbourne.

1961 E. D. GARDINER, Melbourne Grammar School, Melbourne.

1962 R. H. WILKINSON, Physics Department, University of Melbourne.

1963 W. A. F. LANG, Firkbank C.E.G.G.S., Melbourne.

1964 D. S. LUGG, Ministry of Education, Basutoland.

A. I. D. A. AWARD — 1965

J. R. NICHOLAS, B.Sc., B.Ed., M.A.C.E.

John Raymond NICHOLAS graduated as Bachelor of Science from the University of Melbourne in 1954, and took the further degree of Bachelor of Education in 1961. The professional competence of his subsequent work has been recognized by election as a Member of the Australian College of Education.

The compass and quality of this work may be gauged from the unanimity of the testimony, given upon request by the A.I.D.A. referees, from the Head Masters under whom Mr. Nicholas has served since 1960.

One said of him, "He is a brilliant class-room teacher whose work is based on a most perceptive appreciation of progressive educational practice ---- the combination of his attributes has resulted in constant experimentation in methods calculated to lift the study of Science out of the ruts of factual learning to a level where each pupil becomes in some sense a research scientist ---- he makes pupils think, and delight in thinking ---- he is an educator in a much broader sense than might be inferred from his exceptional work in a particular subject field - boldly imaginative but with an understanding capacity for meticulous detail."

Another Head Master referred to "his intensely analytical mind, and the complete integrity with which he approaches all questions and problems" and concludes, "I continue to be astonished at the breadth of his interests and his remarkable capacity for inspirational leadership."

His present Head Master wrote, "He is a teacher such as one rarely sees. He is absolutely dedicated to his work and to assisting students generally - prepared, at any time, to sacrifice his own personal interests to the advancement of science teaching, and, in turn securing from his students a response which is unsurpassed in my experience."

Mr. Nicholas has pursued his career in country high schools (Mildura, Edenhope, Moe), and, at the senior level, he has specialized in Biology. His record of attendances at, and contributions to, Science Teachers' conferences and seminars for in-service training, mostly voluntary, bear witness to the breadth and depth of his own interest in science education; the energy he has displayed in organizing numerous excursions for his students, and some visits by scientific authorities to them, is clear evidence of his belief that students and teachers alike should make live contact with Science in action away from the class-room, and of his determination that residence in a remote area should present no barrier to such enriching experiences. The large number of students encouraged by Mr. Nicholas to enter into the Science Talent Search reflects the mutual enthusiasm engendered by these and other means; the high proportion of these entrants who were awarded bursaries provides further proof, if any be needed, of the effectiveness of his teaching.

Mr. Nicholas has given critical attention to methods of testing to complement his teaching, and has experimented with audio-visual aids, including direct teaching telecasts in collaboration with the Australian Broadcasting Commission. He has made significant contributions to the study of laboratory planning, especially for Biology - in each of his schools he has left behind him physical evidence of the practical application of the principles he adopted or developed, and of his ingenuity in adapting materials at hand to his purpose.

The reputation for efficiency, earned in his own school, rapidly spread beyond his immediate locality and inevitably brought him invitations to serve in wider fields - he was appointed to the Standing Committee for Biology, and, by subsequent service on the B.C.S.C. steering committee, he has influenced the new curriculum approach to Biology in Victoria, and has taken an active part in the organization and progress appraisal of its pilot course; he was recently co-opted to the committee reviewing the Junior Science Course. He has served as Regional Guide and as Group Leader at Education Department seminars, and he represented that body at the Canberra conference of the Australian Science Teachers' Association. He has been sought as guest speaker by influential local bodies, both in the Wimmera and in Gippsland, bringing to parents and citizens a new awareness of science and of science education in their midst.

By his membership of such bodies as the Victorian Institute for Educational Research, the Australian and New Zealand Association for the Advancement of Science, the Royal Society of Victoria and the Latrobe Valley Field Naturalists Club, Mr. Nicholas has not only widened his own horizons and added to the knowledge he has available to illuminate his teaching - he has given evidence of the sound and acceptable contributions a competent science teacher may make to such professional and scientific organizations.

In the internal affairs of the Science Teachers' Association of Victoria, Mr. Nicholas has played an outstanding part. He was co-founder of the Wimmera Branch in 1962, and took a leading part in the revival of the Gippsland Branch in 1963, and has carried out its secretarial work with distinction. In this capacity, he has attracted to his Branch meetings speakers of the calibre of Sir Macfarlane Burnet and Professor Bart Bok, and has provided each with an audience that included leaders of industry, commerce and local government administration as well as teachers and their senior students. He established a Gippsland Talent Search in 1964, and organised a comprehensive exhibition of audio-visual aids in 1965. Equally important as a contribution to science teaching, he has been in personal contact with others seeking or needing inspiration, guidance and advice. In the words of his sponsor, amply supported from other sources, "John's service to his fellow teachers is highly respected and greatly appreciated."

In conclusion, it is appropriate to observe that Mr. Nicholas has satisfied whatever criteria are likely to be laid down to establish the teaching of science as a profession of the highest order:

He is soundly based in his academic preparation, in both Science and Education; he is a first-rate practitioner in the currently accepted techniques of classroom and laboratory; he is receptive to new ideas and to new methods, and is ready and able to make critical and constructive appraisal of them; he brings to his active teaching an element of personal service that raises it above the

plane of a task well done; he involves himself effectively, in his leisure time, in activities that encourage a closer communication with his colleagues and encourage a better understanding of his calling in the community.

The award of the Australian Industries Development Association's Medal recognizes these same attributes, and the referees are appreciative of the quality and devotion of the nominees brought to their notice. It is the unanimous recommendation that this Award for 1965 should mark John Nicholas as one who has contributed substantially to science teaching in Victoria in recent years.



DESIGN:

The A.I.D.A. MEDAL has been designed by one of the foremost sculptors in Australia, ANDOR MESZAROS, who came from Hungary in 1939.

The face of the medallion shows a teacher and pupil looking out on the formation of a star from a swirling nebula of gas and dust; the artist portraying two sublime creative forces—the dynamic processes of inanimate matter, and the subtle, creative moulding of the pupil by the great teacher.

The obverse states the purpose of the medallion; and the individual inscription is engraved on the edge of the medallion.

The medallion is struck in silver.

'Rudis indigestaque moles, quod dixere chaos.' (Ovid: Metamorphoses)

Out of CHAOS grows ORDER.

Beauty is Order.

If out of Chaos grows Order, Beauty must be inherent in Chaos, in the Chaos of the Nebulae of the Macrocosm, and in the Chaos of the yet undeveloped mind.

A Will a Power, makes Order in the Chaos, when from the swirling mass a part separates and a star is born.

The power of the great teacher brings order into the human mind.

Is there greater creative achievement than the teacher's who selects and harnesses the possibilities of the human mind, and brings Order and Beauty out of Chaos?

ANDOR MESZAROS

1-9-1960



PROTECT

AND

ENJOY



LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

Registered at the General Post Office Melbourne for transmission by Post
as a periodical.

Issue No. 32

July, 1966

Dear Fellow Field Naturalists,

General Meeting Friday 22nd. July:

Miss Jean Galbraith will speak to members on 'Australian Carnivorous Plants'. The meeting will commence as usual at 7.30 p.m., and will be held at the Yallourn State School.

Excursion Saturday 23rd. July:

The excursion for July will take the form of a visit to the wild-flower reserves and sanctuaries, and the leader, appropriately, will be Miss Jean Galbraith. Members are requested to meet outside Miss Galbraith's home on the Yallourn North side of the Tyers township at 10.30 a.m.. Those desiring transport should make prior arrangements with their usual contacts.

August Excursion to Healesville:

The Excursion Secretary, Mrs. Lorna Padfield, asks that members intending to join the August excursion to the Healesville Sanctuary, let her know at the General Meeting on the 22nd. July, or ring her at Yallourn 52 581 on or before that date. Some members have already indicated that they will be away at this time which is during the school holidays, and if there is not a sufficient number to warrant the hire of a bus, arrangements will then be made to travel by private cars. Date of excursion - 27th August.

Excutive Meeting Held at the home of Mr. & Mrs. Jim Peterson on Friday 1st. July:

Classes in Natural History:

The Executive decided to recommend to members that arrangements be made for elementary classes in natural history subjects, to commence early in 1967, and to be held probably at one of the High Schools in Morwell.

Tentative and preliminary arrangements have been made for the classes to be held, and a sub-committee - consisting of the President, Mr. Ern Homann, Miss Jean Galbraith, Mr. Jim Peterson and the Editor - was appointed, subject to the approval of members. These arrangements include the provision of a room at a High School, and negetiations with competent teachers to give lectures in appropriate subjects. The Adult Education Association of Victoria has shown great interest in the proposal, and has expressed a willingness to contribute towards the salaries of the teachers.

It is expected that the charge to those who enrol will be comparatively small. It must first be ascertained, of course, if there will be sufficient interest and enrolments to make the classes possible, and in this connection it is proposed that non-members as well as members be invited to participate. The inclusion of non-members is in line with one of the Club's aims - that is, to encourage an interest in natural history.

It is expected that there will be 20 lessons in the first series, and if they are successful, it might be possible to conduct further elementary classes, perhaps advanced classes, and arrive at a stage of forming specialist groups within the Club. Success would almost certainly have the effect of increasing membership - it would result in a more effective membership, and that is the primary aim of the Executive in its proposal.

In connection with this recommendation to conduct such classes, a quotation by Mr. Graham Pizzey and repeated from memory by Miss Jean Galbraith, appears to be relevant, "There is a more effective way of making people interested in conservation than by telling them "You must preserve this or that". Make them interested in outdoor things - help them to see beauty and interest, and they will protect things because they want to - because they think they are worth protecting. That is the best way !! (Miss Galbraith added, "The words may be mine, but the thought is his and I warmly support it")

Member Participation at Meetings:

It was decided that members should be invited to show slides and/or talk on any subject of a natural history nature for up to 10 minutes on any meeting night. This presents a challenge and an opportunity for members to take a more active part at meetings of the Club.

Next Meeting of the Executive:

This will be held at the home of Miss Jean Galbraith on Friday 5th. of August at 7.30 p.m.

Mr. Graham Pizzey:

Members who were privileged to hear Mr. Pizzey talk at the June general meeting, and who attended the excursion led by him to South Cascade Creek on the Saturday, already know that he has accepted honorary membership of the Club. Other members will be interested to know of his generous interest, and all will agree that he will be an inspiration to us in our efforts to learn and understand and see ever greater beauty in the things of nature around us.

The opportunity is taken to express gratitude on behalf of the Club to Mr. Pizzey and the other busy naturalists who travel to the Latrobe Valley, often at no little inconvenience, and give of their time, great knowledge and experience to the obvious great benefit of members. This Club has been fortunate in the speakers and excursion leaders it has been able to lure to the Valley.

Before his recent visit, Mr. Pizzey was known to most of us only as a writer of books and articles on a great variety of natural history subjects. His articles, published each week in the 'Herald', were of great interest and value, and it seems that probably most of these, after reading, have gone with the rest of the paper to the A.P.M. for reversion into pulp. They should be between the stiff covers of a book - they are entertaining and instructive, and help us to see the beauty that he mentioned to Miss Galbraith. They reveal him as a sincere naturalist dedicated to the cause of conservation.

Bird-Banding. Annual Report 1965/66. By F.E. Jones:

The 30th. of June marked the end of our first full year of bird-banding. During this year a total of 1,306 birds were banded, and in addition there were 190 retraps. This year includes repeats (i.e. birds retrapped more than once). 62 species were banded, for which schedules were compiled and sent to the Division of Wildlife Research, C.S.I.R.O.. A list of species and the number of each species banded is included in this report.

Our activities were not confined to the Gippsland area, but ranged from the Goulburn - Murray junction a few miles east of Echuca to Yanakie, which accounts for the non-local birds in the list. Apart from providing experience for the people doing the banding, and in some cases obtaining reliable records of the occurrence and distribution of some birds, the value of the random banding of birds in distant places is limited, and the trend now within the bird-banding scheme is to encourage banders to undertake specific projects which can be followed up with a definite object in view.

In recent weeks birds have not been plentiful in any of our banding areas. The most noticeable decrease in bird numbers is at my regular banding area at Stoney Creek, Cowarr. The numbers caught at this place have been only about a quarter of the catch for this time last year. This is due mainly to the absence of Honey-eaters, apparently caused by the fact that this is off-year for the flowering of the Red Box in this area. The week-end of the 9th.-10th. of July was spent here for a total catch of only 25 birds (two Honey-eaters), but even such negative results as these serve as an indication of bird movement and their dependence upon the flowering Eucalypts.

Unfortunately, the owner of the land at Stoney Creek has found it necessary to clear some of it for grazing purposes, but with the creek frontage and the nearby State Forest, the bird-life of the place should not be unduly affected.

A lead to the further investigation of movements of Honey-eaters may be gained from the observation that on the fringe of the country burnt by last years bush-fires there are Red Box areas that show signs of flowering heavily this year. Apparently the flowering cycle of these trees has been altered by the fact that they were scorched by the fires. Some mist-netting and banding will be done in these areas in the near future.

Regarding the Nest Record Scheme, although only nine cards were filled in (4 by Mrs. Johnstone and 5 by myself), a most appreciative and encouraging letter was received from the R.A.O.U. in acknowledgment of our efforts, and we should be able to do more in this line in the coming season.

Bird-Banding. Species Banded 1965/1966.

<u>R.A.O.U. No.</u>	<u>Species.</u>	<u>Number Banded.</u>
221.	Brown Goshawk.	1.
282.	Crimson Rosella.	1.
284.	Yellow Rosella.	2.
319.	Azure Kingfisher.	1.
322.	Kookaburra.	7.

326.	Sacred Kingfisher.	2.
329.	Rainbow-bird.	1.
344.	Golden Bronze Cuckoo.	1.
357.	Welcome Swallow.	5.
360.	Fairy Martin.	9.
361.	Grey Fantail.	19.
362.	Rufous Fantail.	11.
364.	Willie Wagtail	7.
380.	Scarlet Robin.	2.
381.	Red-capped Robin.	4.
382.	Flame Robin.	5.
383.	Pink Robin.	3.
384.	Rose Robin.	2.
392.	Southern Yellow Robin.	66.
398.	Golden Whistler.	7.
401.	Rufous Whistler.	9.
405.	Olive Whistler.	7.
408.	Grey Shrike-thrush.	23.
416.	Eastern Shrike-fit.	3.
436.	Spotted Quail-thrush.	1.
447.	Ground Thrush.	2.
465.	Brown Wee-bill.	4.
470.	Striated Thornbill.	41.
471.	Little Thornbill.	14.
475.	Brown Thornbill.	55.
481.	Chestnut-tailed Thornbill.	3.
484.	Buff-tailed Thornbill.	9.
486.	Yellow-tailed Thornbill.	15.
488.	White-browed Scrub-wren.	45.
500.	Striated Field-wren.	1.
524.	Reed Warbler.	2.
529.	Superb Blue Wren.	107.
549.	Orange-winged Sittella.	2.
555.	Brown Tree-creeper.	8.
558.	White-throated Tree-creeper.	13.
564.	Mistletoe-bird.	3.
565.	Spotted Pardalote.	5.
574.	Eastern Silvereye.	112.
578.	White-naped Honey-eater.	96.
580.	Black-chinned Honey-eater.	2.
583.	Brown-headed Honey-eater.	16.
591.	Eastern Spinebill.	112.
605.	Lowin Honey-eater.	1.
613.	Fuscous Honey-eater.	1.
614.	Yellow-faced Honey-eater.	32.
617.	White-eared Honey-eater.	13.
619.	Yellow-tufted Honey-eater.	80.
625.	White-plumed Honey-eater.	29.
630.	Crescent Honey-eater.	77.
631.	New Holland Honey-eater.	93.

638.	Red Wattle-bird.	2.
662.	Red-browed Finch.	59.
694.	Pied Currawong.	15.
702.	Grey Butcher-bird.	2.
976.	Striated Pardalote.	2.
991.	Blackbird.	16.
996.	Goldfinch.	18.

62 Species.

Total. 1306.
=====

----- F.E. Jones -----

Sacred Kingfishers at Tyers: By J.W. Johnstone:

In the first fortnight of the last summer holidays, several sightings were made of Sacred Kingfishers in the vicinity of the popular Tyers River swimming pool, and raised hopes that the birds were nesting in the area. On January 5th. one of the birds, viewed through binoculars was seen to be carrying food. Some hours were spent watching in the hope of finding the whereabouts of the nest, but without success.

Saturday the 15th. was hot, and though it was a busy day at home, I took half-an-hour off for swimming. Scrambling from the water on to the spongy mat of roots below a large willow tree, I noticed a small 'white-washed' knothole in the lower side of a sturdy, sloping branch. The hole was about three feet above ground level and one foot in from the water's edge, and the willow tree is one from which two strong ropes are suspended, these being in great demand on hot days by young folk who enjoy swinging out and dropping into the water.

A peep inside the knothole revealed nothing but darkness. Then the twelve year old son of neighbours volunteered the information that baby kingfishers were inside - he had seen the mother-bird going in to feed them.

Scores of people frequent the swimming pool in hot weather, and those parent birds must have been most unhappy when they found they had their nestlings at the busiest holiday spot on the river. It was interesting to note that when the area was crowded with people, the parent kingfishers entered the nest to feed the young, but when all was quiet (as seen on an early morning visit), they clung to the tree outside the entrance to the nest, and fed the young from there. The only food identified was lizards.

As the young birds grow bigger their calling could be easily heard, even from several yards away, yet very few people seemed to notice. Once, on a very crowded day, a boy of perhaps six or seven years of age was standing on the willow roots, and must have had his shoulders brushed by the bird's wings as it entered the nest. He turned quickly and put an eye to the nest entrance, then went to tell his dad and brothers all about it,

but they appeared to be uninterested.

At another time some curious vandal had used an axe in an attempt to open up the nest. To judge by the inexpert axe-marks on the tree this was probably done by a youngster who either was deterred by the toughness of the wood or, more likely, was stopped from continuing by some responsible person.

Three and a half weeks after the parent bird was first seen carrying food the young were still in the nest. Sometime in the following week which, fortunately was much too cool for swimming, they left the nest, and have not been seen in the vicinity since. Being seasonal migrants, they are probably far to the north by the time this was written.

On two occasions in January another pair of Sacred Kingfishers was seen carrying food into some bush on the east side of the river at a spot about a quarter of a mile upstream from the river end of Track W3. No search was made for the nest however.

----- J.W. Johnstone -----

National Park at Foster's Gully, Yinnar South: By Mr. J. Peterson:

Latest developments on this reserve are that the 350 odd acres area has been purchased by the Morwell Shire Council for \$21,000. The transaction has been finalised and the Morwell Shire will later recover half of this cost from the State Government.

The area will be handed over to the National Parks Authority as a National Park, without any strings attached whatsoever - which will be a wonderful gesture. During the Spring session of Parliament a Bill will be presented for the purpose of proclaiming the area as a National Park. In the meantime preparatory work is being done by the National Parks authority - in particular Mr. Yorston - and by the Shire of Morwell. One problem is where to place an access road, but members can be assured that the position of the road in relation to the Tree Orchid will be closely watched by both the National Parks Authority and the Morwell Shire. It is of interest that one of the conditions of the State Government grant is that access to the area shall be to the satisfaction of the National Parks Authority.

The other problem is the naming of the Park, and this matter is receiving close attention and research being conducted into the names of early settlers, as well as aboriginal names which could be directly related to the reserve. I feel that priority will be given to an aboriginal name, if a suitable one associated with the area can be obtained.

Our Club can be expected to be approached regarding the naming, in addition to providing lists of flora and fauna to be found there. Members who might have some information regarding the early history of Foster's Gully are asked to pass it on to the Secretary.

----- J. Peterson -----

Report on Excursion to A.P.M. Forests Nursery, Traralgon, and
Working Bee at South Traralgon Reserve on Saturday, 28th. May 1966. By
Miss Betty Kemp:

Again the weather favoured us - cool and fine - and ideal for a working bee in the bush. A very interesting morning was spent at the Traralgon Nursery of A.P.M. Forests where we were shown various types of research carried out, and how the young plants were grown.

Selection of Stock: Parent pine trees for seed were selected for length of fibre, good height, speed of growth, smallness of lateral limbs and straightness of trunk, i.e., freedom from twisting.

Grafting: Tips are taken from good trees and grafted into small seedlings. A temperature-controlled corrugated plastic shed, which let in plenty of light, contained many grafted pine trees, while outside in the orchard (the grafts having taken and growing) were large squares of jiffy pots (about 400 per square), with healthy young trees awaiting planting out. Other jiffy pot squares contained Mountain Ash (*E. regnans*) seedlings, but these were not grafted.

Progeny testing: Here the female cones of young trees are isolated by covering with plastic bags and fertilised from the scion trees.

Ashbed effect: In burned over areas the plants grow very well. In conversion of a eucalypt area to pine, felled timber was piled into windrows and burned. After replanting it was noted that the pine trees growing in the windrows stood well above those planted in between - thought to be due partly to the increase in potash and to the sterilising of the soil of harmful bacteria etc..

Phosphorous Deficiency has been noted in deep sandy areas where the phosphorous has leached down to the lower levels, causing the trees to yellow quickly. Here the use of superphosphate made a great difference.

Sirex Wasp: This wasp bores holes up to $\frac{1}{4}$ " in diameter, letting in a fungus which blocks the sap rising in the tree which, if badly infested, will eventually die. The holes spoil the wood for timber but not for pulp.

An entrancing find, on a lawn where once stood a saw mill, were groups of 'Shaggy Caps', edible fungi of fairy tale shapes emerging like white furled umbrellas (or salt shakers), and expanding through stages of unfurlment into almost inverted umbrellas with a thick, raised black rim.

After a hospitable and welcome 'cuppa' provided by Mr. Cropper, Mr. Homann thanked him on behalf of the Club for a very interesting and educational morning.

We then moved on to the Working Bee at South Traralgon Reserve, the task being to remove the rubbish dumped there. We found heaps of it throughout the bush, too much to clear in one short afternoon - about six trailer loads were carted off to the proper dump with more to go.

Autumn Bird Orchids (*Caladenia reflexa*) in flower were growing amongst the rubbish, and some were trodden but, we hope, will survive. Several flowering Mosquito Orchids (*Acianthus exsertus*) were also seen with their single heart-shaped leaves. Leaves were seen of other kinds yet to flower, and it is hoped that the heavy feet of the many willing helpers did

no permanent damage. The Correa (*C. reflexa*) was in bloom, some bushes having particularly large red and green bells, while the Running Postman (*Kennedya prostrata*) and other ground trailers, gave promise of a spread of colour in Spring.

A Koala was discovered in a tree, and Mrs. Lance Galbraith identified 14 species of bird life - Grey Fantail, Blue Wren, Scarlet Robin, White-backed Magpie, Little Thornbill, Brown Thornbill, Spine bill Honey-eater, White-eared Honey-eater, Crescent Honey-eater, Jacky Winter, Swallow, Rosella, White Ibis and the Noisy Minah.

Now that the Reserve is fenced it is to be hoped that no further spoliation will take place, but it is sad to reflect how man, with all his so-called superior intelligence, is such a misfit in the orderliness of Nature.

----- B. Kemp -----

The Baw Baw Plateau: By Mr. E. Homann:

On display in the Moe Library for the month of July is a scale model of the Baw Baw Plateau. This is the work of L.V.F.N.C. member Mr. George Toye, and shows his great knowledge of the area. The model is constructed with great skill and patience, and reflects much credit on Mr. Toye.

For members wishing to view the scale model, the Moe Library is open as follows:-

Weekdays - Mon. to Friday.	10 a.m. - 5 p.m.
	7 p.m. - 8.30 p.m.
Saturdays.	10 a.m. - 12 noon.

----- E. Homann -----

The Lae (New Guinea) Botanical Gardens: By Mr. E. Homann:

On my recent visit to New Guinea I was lucky enough to spend four days in Lae. Lae has been developed since the last War as the capital of the Territory of New Guinea, and has been planned as a lovely town. Included in the planning is an area of 160 acres of botanical gardens, and these adjoin the War Cemetery. There is a large herbarium, where are kept botanical specimens from all over the island.

The gardens are laid out with sweeping lawns with borders of brilliantly foliated and flowered plants, the only ones of which I was familiar with being the hibiscus and bougainvillia. Behind the borders was the thick green foliage of jungle trees. Scattered over the lawns were tree specimens from all over the tropical world. Many species of palms were grown particularly on a flat section of the gardens. The most graceful of these, I think, was the betel-nut palm with its long slender trunk crowned

by a dainty head of deep green leaves. Along the creek which flowed through the flat, water-lilies grew in colourful profusion. A few of the lovely golden-brown tree kangaroos were kept in this area.

On all the sizeable trees throughout, ferns, foliage plants, and orchids were growing in great numbers. However, the more colourful and particularly the cultivated orchids were put on show in the Orchid House as they came into bloom. The house was not to keep them warm, but to shelter them from the hot direct rays of the sun. Among the cultivated species of orchids were very showy blossom spikes of Cattleyas and Vandas blossom, while the native species were represented by beautiful specimens of many different kinds of Dendrobium, mostly from Northern Australia and New Guinea itself. Quaint and striking were the native Bulbophyllums on display in great numbers, some having two parts of the flower greatly enlarged, while the other parts of the flower seemed like a jewel mounted between them.

My stay in Lae seemed far too short.

---- E. Homann ----

A Bird Note: by Mrs. Ellen Lyndon:

When we moved from the farm into the township we missed the company of our common garden birds keenly. After twelve years of growing there was good shelter and a selection of honey flora that attracted many resident or visiting birds. I had often tried to interest the Honeyeaters in extra rations in the shape of containers of sugar or honey syrup, but these were soon black with ants, and I do not recall ever seeing a bird sip at one.

Here on my small town allotment now the dahlias are done there is a single spike of the autumn poker (Kniphoffa) bravely flaunting itself in the back vegetable patch, where the root was temporarily parked but has grown on. The White-eared Honeyeaters have found this and when it began to look a little battered, I attached to the stem below the flower a couple of empty gum-nuts from *E. ficifolia* filled with a syrup of honey and water. These were accepted almost instantly, and are very popular with the White-ears. This morning a pair of Spinebills were working the poker flowers, so it will be interesting to see if they too will try the syrup.

---- E. Lyndon ----

And a note on my article "Some Fungi seen at Darlimurla" in the June issue of the Newsletter, "In my description of the colony of brown puffballs found there I omitted to give their name.

Mr. Willis has identified them as Calostoma fuscum, a fairly common fungus in south-eastern Australia.

---- E. Lyndon ----

Some Less Common Autumn Orchids: By Mr. Jim Peterson:

Fisch's Greenhood (*Pterostylis fishii*) was in flower again this year. The range has not been extended in spite of searching by several naturalists, including Mr. Bruce Muir of the National Herbarium.

Mrs. Thompson has advised the Shire of Traralgon of its second location at Traralgon South and has their promise that if any road works are to be carried out, it will be done on the side opposite the orchids. It is hoped that the fencing of the first location, Clarke's Road, will be completed in the near future.

Although not in our district but of interest to us all is the finding in the Bairnsdale area of an orchid identified by the Herbarium as *Pterostylis alviata* - a very uncommon orchid. It does appear that this orchid, if it is a species of its own, is much more widespread than thought. Much more information must be gathered to correctly define its characteristics. It is of interest that the author, whilst checking drawings of this orchid's close friend *P. obtusa*, found a drawing of an unnamed orchid in an old 'Victorian Naturalist'. It looks very like *P. alviata*. The Herbarium will look into this as they will probably have a sample among the Rogers' collection of orchids which they hold. If this is so the range will be greatly extended to north of Sydney, whereas it was previously known to extend into N.S.W. near Genoa.

The author had a very interesting day with some of the Bairnsdale naturalists, looking for *P. alviata* where it was originally found, on Little Snake Island, off Port Welshpool. All that were found were a few dead ones. While looking for this and *P. fishii*, Mr. Bruce Muir found the uncommon Spurred Helmet (*Corybas aconitiflorus*) near Woodside. Perhaps it also is somewhere closer the Latrobe Valley.

How many times have we found the leaves of the Autumn Bird Orchid? (*Chiloglottis reflexa*). But only this year have we found it in flower. Our reserve at Traralgon South had dozens of them out in flower this year. While at Traralgon South Working Bee a bud of what is probably the Hyacinth orchid (*Dipodium punctatum*) was found. This orchid normally flowers in the December - February period. The beginning of July saw the same Hyacinth orchid still in bud. I wonder if it will flower and when.

Speaking of out of season flowering we found another summer flowering orchid, the small Tongue Orchid (*Cryptostylis leptochila*) in flower at Darlimurla during May.

Also found at Darlimurla was a Leek Orchid, probably the variable Midge Leek Orchid (*Prasophyllum archeri*). Probably, because the flower was in its dying stages, and this was the most common of the three species it could have been. Confirmation will have to wait until next year.

----- J. Peterson -----

----- LATROBE VALLEY FIELD NATURALISTS' CLUB. -----

OFFICE BEARERS:

President: Mr. E. Homann.
Senior Vice-President: Mr. J. Peterson.
Vice-Presidents. Mr. G.T. Scanlan, Mr. F. Jones.
Treasurer: Mr. E. McElroy. Assistant: Mrs. F. Kinniburgh.
Excursion Secretary: Miss Nancy Rossiter. Assistant: Mrs. L. Padfield.
Publicity: Mr. R. Stevens. Editor: Mr. G.T. Scanlan.
Secretary: Mr. S. Belgraver, 179 Lloyd Street, Moe.

OBJECTS OF THE CLUB:

1. The study, enjoyment and conservation of nature;
2. The encouragement of an interest in the various aspects of natural history;
3. The holding of regular meetings and arranging for suitable speakers;
4. The organising of excursions or field days.

MEETINGS OF THE CLUB:

General meetings of the Club are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m. The subjects for talks at general meetings are published in the monthly Newsletter. Visitors are always welcome.

EXCURSIONS:

Excursions of the Club are in the nature of field days to places of botanical interest, or to study the fauna or geology of an area, with competent leaders.

SUBSCRIPTIONS:

The Club annual subscription is 10/- for a single person, 1/- for juniors, and 15/- for a family. The subscription covers the monthly Newsletter.

NEWSLETTER: Contributions are invited from members for the Letter which is published monthly. They should be addressed to: Mr. G.T. Scanlan, L.V. C. Hospital, Yallourn.



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LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

Registered at the General Post Office Melbourne for transmission by Post
as a periodical.

Issue No. 33

August, 1966

Dear Fellow Field Naturalists,

General Meeting Friday 26th. August:

The speaker at the next general meeting will be Miss Ina Watson, Information, attached to the Fisheries & Wildlife Department of Victoria, on the subject of 'Mammals'. Miss Watson is authoritative, interesting and entertaining, and this will be another worth while and instructive evening.

Excursion Saturday 27th. August:

This will be to the Sir Colin Mackenzie Wildlife Sanctuary at Healesville. Mrs. Padfield, the excursion Secretary, advises that, as insufficient enquiries were received to justify the hiring of a bus, the excursion will be by private cars. Members are asked to assemble on the Princes Highway outside the Moe High School at 9 a.m..

Members with seats to spare, and members desiring transport, should contact Mrs. Padfield, telephone Yallourn 52 581, who will endeavour to make suitable arrangements.

The object of the excursion is to see native birds and other animals at close quarters, for the purpose of assisting in identification in the field, and just to enjoy them in ideal surroundings.

Report of Executive Meeting held at the home of Miss Jean Galbraith on Friday 5th. August:

Weekend at Buchan: Dr. J.A. Talent has generously agreed to lead a two-day excursion in the Buchan area on dates yet to be fixed, but in either November or December next. Full details should be available in the September Newsletter, but this will serve as prior notice to members of an outstanding excursion of the year. Invitations are being extended to members of the Sale and Bairnsdale Field Naturalists Clubs to join us.

Dr. Talent is particularly well qualified to lead the Clubs and explain the geology of the Buchan area. Memoir No. 21, published as a memoir of the Geological Survey of Victoria in 1958 and entitled: "Geology of the Buchan Area, East Gippsland." was the work of Drs. Talent and Teichert. It was the result of many years of field work by them and others. Dr. Talent contributed the sections on the geomorphology and economic geology of the area, which comprises Part 11 of the memoir.

As a form of bait to the gemmologists among the Club members, it is of interest to note a reference by Dr. Talent to the presence of opal in the area. He wrote: "Common opal has been mined at two localities at W-Tree, between Murrindal and Butcher's Ridge. In both cases the Common opal occurs in vesicular Tertiary basalts resting unconformably on the Snowy River Volcanics. The stone is very flawed and jointed at the surface but in depth is solid and beautifully streaked and mottled in yellow, brown, deep green, red, black, and milky white ... "

Letters from Mr. Ken Eldridge:

Former President of the Club, Ken Eldridge, who was recently awarded a research scholarship at the Australian National University, Canberra, has written a general letter to members, and a more personal note to Secretary, Mr. Belgraver. He writes: "Dear friends of the L.V.F.N.C.- Thank you very much for your kind thoughts and good wishes. I shall always treasure the memories of good fellowship with a diverse group of friendly people with the common aim of protecting and enjoying nature. Now I can also look at your signatures to recall your faces, enjoy the lively drawings of Caleana lacrymosa, and the very personal poem. You may be sure that I appreciate the honour you have given me.

"The Great Extermination" is a book my wife and I were keen to buy, but didn't. Now we have it as a gift from good friends. We are both half way through it already. What a character Jock Marshall must be. Have you thought of asking him to address a meeting some time?

Thank you again and again for all the many things you have given me over the years.

Yours Sincerely,

(Signed) Ken Eldridge."

And some extracts from Ken's letter to Simon Belgraver: "Life as a research student in Canberra is not greatly different from the Forest Research Station at Traralgon, except that I must do everything myself. The days aren't long enough, and if they were longer I'd spend the extra hours asleep. My work is a lot of reading, some statistical work, three lectures a week until November, and growing seedlings. The statistical work goes on a computer - it was plain agony trying to understand how to make my problems fit into the machine at first. It looks much easier now.

Another wonderful gadget here is the C.S.I.R.O. 'phytotron', which is a large set of glass houses and artificially lit chambers for growing plants under a range of temperatures and day lengths. The emphasis in Canberra is on experiments with nature rather than observation. Even the geologists have experiments on the formation of rocks. One laboratory creates enormous temperatures and pressures on minerals to see how they change and recrystallize on cooling. Another laboratory is trying to simulate the conditions of marine biology leading to the formation of oil. Canberra is a fascinating place for natural history, with an experimental twist!

There hasn't been time to join the local naturalists, but there is a National Conservation headquarters in Canberra. I'll be sending some information about it to Jim Peterson in a day or two....

Yours Sincerely,

(Signed) Ken Eldridge."

Classes in Natural History: Although there have been no further developments, arrangements are continuing for a commencement of the classes in 1967.

Annual Subscriptions: A condition attaching to registration of this Newsletter with the P.M.G. Department as a periodical eligible for special bulk postage rates is that it may be posted only to bona fide financial members of the Club. Members whose subscriptions are in arrears, or who are in doubt as to the position of being financial or otherwise, are asked to contact the Secretary or Treasurer.

Car Stickers: Replies are now being received to the many letters sent to kindred organisations suggesting the adoption of the grass tree car sticker as a ready means of identification. The response so far has been very gratifying, and there would appear to be little doubt of the eventual wide distribution and use of Mrs. Jakobson's attractive design.

The Thomson River Watershed: The recommendations of the Parliamentary Public Works Committee, at present hearing evidence at Sale on a proposal to exclude the public from the large area constituting the watershed of the Thomson River, will be eagerly awaited. Mr. Jim Peterson was to give evidence on behalf of this and other similar clubs, claiming that controlled access by botanists and other naturalists was essential in order to continue the still formidable task of listing the flora and fauna of the few remaining comparatively untouched areas in Gippsland. It would appear that there is a very real possibility of this large piece of country becoming a completely closed area.

The Birds and the Bees - and the Marsupial Mice:

The following extract from the Geraldton (W.A.) Guardian of the 9th. December 1965 was submitted by Miss Jean Galbraith to illustrate the interdependence of the living things which comprise any environmental area, and what may happen when the 'balance' is upset.

"The story of the birds and the bees and the flowers had an unusual twist at the monthly meeting of the Victoria branch of the Tree Society ... On display was a flower which is becoming extinct because - it is believed - it spurns birds and bees and prefers mice.

Banksia elegans comes from the Eneabba area, where the society is attempting to establish a reserve to perpetuate the rich flora of the region which is being opened up and in which natural growth is disappearing before the bulldozers and fires of man.

This bush however, which bears an attractive lemon-colored flower the size and shape of a tennis ball among its long-toothed pale green leaves, does not appear to be dying out because of any direct action by man but by what is probably an indirect action.

Its full biological and botanical history is not completely understood, but it is known that neither birds nor bees appear able to pollinate the flowers successfully. It is believed that the sharp furry nose of some such form of marsupial mouse as the jerboa or dunnart is required.

These little animals live on insects and find the ripe flowers a rich hunting ground. As they burrow their noses through the long Yellow 'spikes' of the flowers into the centre seeking their prey they are believed to exert sufficient force to release the pollen, which birds and bees cannot do. However, jerboas are not found in the region now, and the other forms of marsupial mice also are becoming increasingly rare. As a result, *Banksia elegans* appears to be doomed.

It is probable that the destruction of the insectivorous marsupial mice is largely due to the stupid habit many people have of releasing unwanted cats in the bush instead of having them painlessly disposed of. This is possibly the greatest cause of destruction of natural wild life in Australia. Marsupial mice are most useful little animals, and havoc by grasshoppers and other insect pests might be reduced considerably if they were not preyed upon by cast-off domestic cats."

Spiderwebs: by Mrs. Bon Thompson:

The Brodribb River was overflowing on to the flats on either side of the Marlo Road. As we approached it looked as if thin plastic had been thrown over the bushes and the grass, but on inspection it was seen that spiderwebs, covered with tiny black spiders, were everywhere, even over the posts and up the telephone poles, and where the road bank was higher than the fence, the webs spread right across.

Although this may be usual in the area, to us it presented an amazing sight !

--- Bon Thompson ---

The Orchid and the Bee: by Jim Peterson:

Late last year Mr. Homann, Mrs. Peterson and I located a number of Purple Diuris (*Diuris punctata*) in flower in the Freestone Creek area near Briagalong. This in itself is worthy of note as we have sought these beautiful flowers for some time. The most interesting discovery however, was an association of a native bee with these orchids.

On two occasions a bee (unidentified) was seen on the labellum of different flowers. Both the bee and the labellum were violently agitating for a period of time after discovery sufficient to set up the camera, focus and shoot. During investigations a number of bees were found motionless on either the dorsal sepal or the lateral petals of different flowers. Once the period of immobility finished - at least ten minutes - the bee seemed to recover rapidly and, after a short and slow crawl to the extremity of the flower it would fly away.

During this motionless period they seemed to be quite senseless. This was well-indicated when I shook one of the flowers when the bee fell to the ground, remaining where it fell without any movement for some minutes, then after a short crawl, flew away. At least a dozen bees were found in this condition scattered among fifty odd flowers.

The more one ponders over this association the more amazing the possibilities appear to be. Perhaps the coming season will provide some of the answers.

--- Jim Peterson ---

Spurred Helmet Orchid at Nerrena: by Mrs. Eulalie Brewster:

In June this year Susan Hyde (Mr. John Brewster's eldest granddaughter) found leaves and buds of a helmet orchid in the bush on her parents' property at Nerrena. These were watched for some weeks and a couple of local field naturalists were called to view them. At this stage there were three leaves, one with a bud, one with a flower.

As the flower developed it was thought to be the spurred helmet orchid. So Susan finally sent it to the Herbarium for positive identification. Sure enough it is *Corybas aconitiflorus*. There are more similar leaves in the vicinity which are being watched, but so far have shown no sign of buds.

And, another interesting object picked up in the course of the afternoon walk at the March excursion to the Sandy Point - Waratah Bay area was a fine dead specimen of a sea-horse. As it measures over thirteen inches in length it could well be the Large Sea Horse (*Hippocampus abdominalis*). The leafy appendages on various parts of its body have dried and shrunk considerably, but even so one can visualize what wonderful camouflage is provided for this unusual animal in its natural habitat on the lower levels of the ocean floor, or resting amongst branched seaweed.

---- E. Brewster ----

Ecology: A few References by the Editor:

The term 'ecology' is one which we, as naturalists, will be hearing and using with increasing meaning and urgency as time goes on. It has been briefly defined as: "The biology of the living landscape" and: "The science which treats of organisms in relation to their environment ... Ecology lies on the frontiers of so many other subjects including various branches of geography, that its limits have not yet been precisely defined."

Among the several recent books which provide help towards an understanding of the interrelationship and the interdependence of living things to their environment is "Where There is Life" by Paul Sears. In his

chapter entitled: "A New Science Emerges", he wrote: "... Vocation or avocation, natural history in the strict sense is one of the most intriguing and important aspects of science. But it has experienced handicaps, some old, some new Ordinarily, a field of science that has been neglected and fallen behind will eventually catch up with the parade. Sooner or later good works speak for themselves, even after they have been ignored for four decades, as happened in 1900, with Mendel's remarkable studies of inheritance. The plight of ecology is a different and urgent one. The materials of the astronomer or chemist keep very well, and their study can be picked up at any point. Those most valuable to the ecologist are being rapidly altered or even destroyed by man, often to his own ultimate harm. Again, the findings of ecology can and should guide man to a course of action that will prevent disaster. But to do so, they must be clearly and widely understood. They must also form a much more complete and better organized body of knowledge than is true at present. The public has had enough bad advice from ill-matured science all along the line...

With scholasticism done away with, newer obstacles have developed, roughly summarized under the prevalent feeling that natural history is old-fashioned, obvious and superficial. Much of it cannot be reduced to mathematical terms and - crime of crimes - it is often enjoyable, with a strong appeal to amateurs, who have made important contributions to it. So great is its task in fact that there will never be enough professionals to accomplish it... natural history is in grave danger of being tolerated as a necessary evil, if indeed at all..." "... does the great pattern of life in which we are caught and whose destiny is now largely in our hands deserve less attention than the efforts to create living protoplasm out of inorganic materials?"

Mr. Sears continues to review the nature and status of ecology by references to its origins and development. He makes the comment that the birth of ecology "long precedes its christening, for its first written records go back to Homeric times."

Throughout the whole of this book: "Where There is Life", is the note of urgency - urgency to learn and understand as far as it is possible in the light of present knowledge - urgency to act and support action where it is shown to be necessary. The message is addressed not, in this case - to the other 'bloke', but to us, to those of us concerned as to the ultimate fate of man himself as it may be determined by what man does to other living things and to their and our environment.

--- Ed ---

The L.V.F.N.C. Case for the Upper Thomson Valley Area:

The possible implications of recommendations to be made by the Parliamentary Works Committee, and subsequent action by the State Government, in respect to the above comparatively large catchment area, are of such importance to us as naturalists - and to posterity - that no apology is made for taking Newsletter space to publish the greater part of the sworn evidence presented to the Committee by Mr. Jim Peterson on behalf of the Club. Mr. Peterson is to be congratulated for the excellence of his preparation of the case, and he, in turn, is grateful for the assistance received

from individuals and organisations. He pointed out to the Committee that the L.V.F.N.C. had applied to the Lands Department in 1962 for the South Cascade Creek area to be set aside as a Nature Reserve. The statement then proceeded as follows:-

"This area provides an excellent sample of what the country was like before the days of white settlement. It ranges from the 1200' to the 5,000' level, and within the area are very good samples of alpine flora (including species known only from the Baw Baw area), and of thick rain forest on its lower reaches. In the heart of the region are magnificent fern gullies unspoilt by fire and including very old myrtle beeches and huge mountain ash, as well as a wide range of ferns. It is of interest that over the creek flies a primitive Stone Fly, known only from this area. The Field Naturalists Club of Victoria Mammal Survey Group, whose work is carried out with the knowledge and sanction of the Fisheries and Wildlife Department, know the region to be rich in mammals from work already done there. It is believed that the rare Leadbeater's possum, already found in the upper reaches of the Thomson River, will be found in the South Cascade area.

This Club considers that it is in the best interests of the future generations of Australia that this area remain unalienated and be conserved for both scientific and aesthetic reasons. With the increasing need for the more efficient use of our land much more scientific study of natural conditions will be needed, particularly in the field of ecology. To date, work carried out in this field has, for financial reasons, been limited and consequently is very specialised. Even so, this has proved to be of great value to the nation's economy.

The future will demand an even greater output from the land. The need for improved yields, brought about by such things as improved germination, quicker growth and improved pest control, becomes a matter of critical importance. A lot of this improvement will depend upon the results of studies of associations of plants, birds, insects, fungi etc.. The success of these studies will, therefore, depend to a large degree upon the amount of material available. Nature has provided a wonderful reservoir in the past. Its role in the future must be greater. It is therefore essential that adequate samples representative of all types of ecological conditions are left for scientific study.

Who can now foretell the needs of science even 50 years hence? It would be a wise policy to leave too much now, rather than too little with the consequent restrictions on scientific study. What is lost can never be regained. Unfortunately there seems little chance of too much or even enough.

So little is known, not only of this region, but of the whole Thomson Valley area. The only official botanical record of the area (excluding the extreme top) held at the National Herbarium is that provided by members of the Latrobe Valley Field Naturalists Club. Bird, animal and insect records are very incomplete and information on fungi in the region almost non-existent. These records must be completed before a real study of ecology can be carried out.

Money is not available to pay professionals to do this work. It is the role of the amateur to continue with it. This Club, in conjunction

with the Adult Education Association of Victoria, is about to launch an educational programme to train amateurs to do this work. The training will be carried out by very competent people including Miss Jean Galbraith, well known authority on botany, and John Nicholas, winner of the 1966 A.I.D.A. Science Teachers' Award, both enthusiastic members of our Club.

This Club wishes to continue with its work in this region as part of a general plan of making a census of the natural history of the mid-Gippsland area. The census will be a valuable start to an ecological study. In order to fulfil this plan, we desire that naturalists be given access to the whole area under consideration and, in particular, to the South Cascade area.

For the past four years our work in the region has been concentrated near the South Cascade. To facilitate study, this Club has built over a half mile of walking track through an area most difficult of access. To extend our studies further access tracks will be needed. The Latrobe Valley Field Naturalists Club wishes to continue this work on similar lines to that already completed.

Aesthetically, the area provides some very pleasant scenery, and the fern gullies in particular are as good as any of their kind in south-eastern Australia. It is our duty to preserve this so that future generations can see and enjoy what may then be the only remaining sample of its kind.

It is, therefore, the desire of this Club that the complete South Cascade drainage area be made a Nature Reserve and that it be placed under the control of a Board of Management of conservationists, including members of the Latrobe Valley Field Naturalists Club. It is our desire that the Board of Management limit access to the South Cascade area taking into consideration the needs both to conserve and to study.

The submissions of this Club are supported by the Bairnsdale, Sale, Warragul and Ringwood Field Naturalists Clubs, as well as the Field Naturalists Club of Victoria. I speak for the 1,300 members of these organisations. In addition, I speak for the 1,200 members of the Society for Growing Australian Plants (including the Maroondah Group), and for the 1,500 members of the National Parks Association of Victoria. These people, who come from every walk of life, are linked by their interest in and study of natural history. They would be the majority of those who are making a practical study of natural history, particularly general ecology in Victoria. They are distressed that such a small amount of this State has been conserved."

Mr. Peterson's statement then makes comparisons with the areas of National Parks reserved in Victoria with those of the United States of America, and other States of the Commonwealth - illustrating the fact that we still have a long way to go. He concludes with a summary of the submissions, and it is felt that the members of the Parliamentary Works Committee could not fail to be impressed with the case as presented.

----- LATROBE VALLEY FIELD NATURALISTS' CLUB. -----

OFFICE BEARERS:

President: Mr. E. Homann.
Senior Vice-President: Mr. J. Peterson.
Vice-Presidents. Mr. G.T. Scanlan, Mr. F. Jones.
Treasurer: Mr. E. McElroy. Assistant: Mrs. F. Kinniburgh.
Excursion Secretary: Miss Nancy Rossiter. Assistant: Mrs. L. Padfield.
Publicity: Mr. R. Stevens. Editor: Mr. G.T. Scanlan.
Secretary: Mr. S. Belgraver, 179 Lloyd Street, Moe.

OBJECTS OF THE CLUB:

1. The study, enjoyment and conservation of nature;
2. The encouragement of an interest in the various aspects of natural history;
3. The holding of regular meetings and arranging for suitable speakers;
4. The organising of excursions or field days.

MEETINGS OF THE CLUB:

General meetings of the Club are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m. The subjects for talks at general meetings are published in the monthly Newsletter. Visitors are always welcome.

EXCURSIONS:

Excursions of the Club are in the nature of field days to places of botanical interest, or to study the fauna or geology of an area, with competent leaders.

SUBSCRIPTIONS:

The Club annual subscription is 10/- for a single person, 1/- for juniors, and 15/- for a family. The subscription covers the monthly Newsletter.

NEWSLETTER: Contributions are invited from members for the Letter which is published monthly. They should be addressed to: Mr. G.T. Scanlan, L.V. C. Hospital, Yallourn.

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LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

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Issue No. 34

~~July~~, 1966

Sept.

MONTHLY NEWSLETTER. SEPTEMBER 1966.

Dear Fellow Field Naturalists,

General Meeting Friday 23rd. September:

The subject for the September meeting, which will be held at the Yallourn State School, commencing at 7.30 p.m. is 'Orchids', and the joint speakers Messrs. E. Homann and J. Peterson.

The orchids to be described and illustrated by coloured slides are of the native Australian variety, and not the exotics of the tropics or the work of the orchid fancier. The Australian varieties are numerous and of great beauty and interest, while the speakers are keen and knowledgeable students of them. Some of the orchids are small and seen only by the practised eye - which goes some way to explain the crawling of these two enthusiasts through the undergrowth at appropriate seasons.

Excursion on Saturday 24th. September:

The leader of this excursion will be Mr. Graham Marshall and is to be of a botanical nature along Ricardo's Road, near Mirboo South. Members are asked to meet at the junction of the Thorpdale and Mountain Hut Roads at 10.30 a.m. Further particulars may be obtained from the Excursion Secretary, Mrs. Lorna Padfield. Lunch will probably be at Darlimurla.

Mid-month Excursion in October:

This is the excursion which was shown on the 1966 programme as taking place on the 11th. September. The Excursion Secretary apologises for not informing members that no arrangements had been made for the excursion, and that it would not, therefore, take place.

It will now be on Sunday the 16th. October to the Gormandale area. The object is again botanical, and Mr. Graham Marshall is to be the leader. A few notes by Mr. Tom Moretti elsewhere in this Newsletter indicate that the wildflowers are now worth seeing in that area. Members are asked to meet at the turn-off to the Gormandale Road after crossing under the bridge at Traralgon, at 1.30 p.m..

The Executive Meeting held on the 12th. September at the home of Mrs. and Mr. E. McElroy, Morwell:

Two-day Buchan Excursion: Members will be asked to determine the date for this excursion at the general meeting on Friday the 23rd. September.

Departure of Mr. and Mrs. Reg Stevens: Members will regret the departure, in the near future of Reg Stevens and Mrs. Stevens, both as worthy citizens of the district, and, as far as Reg is concerned, as an active and useful member of the L.V.F.N.C.. They are to live at Boronia - a delightfully named outer suburb of Melbourne - and will take with them the sincere good wishes for a happy and useful retirement from all Club members. Reg has done better than he will admit as the Club's Publicity Officer, and has broken ground that will be easier for his successor to cultivate in the future.

The Grass-tree Car Sticker:

It was reported that sales and requests for the Car Sticker now exceed 1,000. This excellent idea for an Australia-wide means of naturalist identification promises to be successful beyond the Club's most optimistic expectations. Have you obtained your Sticker, and, what is more important, have you placed it on your rear car (or other vehicle) window?

Talk by Professor J.S. Turner:

Professor Turner, who contributed the chapter "The Decline of the Plants" in "The Great Extermination" reviewed in this Newsletter by Mr. Ken Eldridge, will give a talk on Conservation at the Methodist Church, Moe, on Sunday 2nd. October, and members of the L.V.F.N.C. have been invited to attend. The talk will commence at 4.45 p.m. and conclude at about 6.45 p.m.

The Next Executive Meeting will be held at the home of Mr. & Mrs. Jim Peterson, 14 Barry Street, Morwell, on Friday 7th. October, at 7.30 p.m.

Review of "The Great Extermination".

A review of the recent work edited by Professor A.J. Marshall is in this issue and made by Mr. Ken Eldridge, a former President of the Club, and at present a research scholar at the Australian National University, Canberra. As he suggests, it should be read by every Australian.

The August General Meeting and Excursion:

The meeting held on Friday the 26th. August was to have taken the form of a talk on mammals by Miss Ina Watson, Information Officer attached to the Fisheries & Wildlife Department of Victoria. As Miss Watson was unable to leave Melbourne, she kindly arranged for three films to be sent by the department which were to take the place of her talk. They were well chosen, and shown to a most appreciative audience. The first to be shown was entitled "The Egretta", and recorded the mating and breeding cycle of these beautiful birds. The second film was of Australia's only true Crane, the Brolga or Native Companion. This film was the work of a dedicated naturalist which took, it is understood, several years to complete. The dance of the brolgas, much more dignified and graceful than some of the modern prances by members of the genus Homo and species sapiens, was fascinating. The third offering was an Australian nature film by a B.B.C. Film Unit, and showed, among other interesting things, the Lyrebird displaying in Sherbrook Forest, and Koalas being transferred by officers of the Fisheries & Wildlife Department.

The excursion to the Sir Colin MacKenzie Sanctuary at Badger Creek Healesville on the Saturday was complementary to the films of the previous night. Members saw the egrets among other of the water birds; the Brolgas, which were to be heard as well as seen, and some at least of the about 140 species of birds, mammals and reptiles which are kept in or attracted to this model sanctuary for native fauna. The excursion was also well attended, and members wandered in small groups or alone, absorbing the beauties and attractions, and points for identification of the immates.

Book Review: by K.G. Eldridge. 12/8/1966.

"The Great Extermination", edited by A.J. Marshall, published by Heinemann, (1966), 221 pp. \$4.75.

Professor A.J. Marshall, who is Professor of Zoology and Comparative Physiology at Monash University, Melbourne, is better known to readers of 'The Australian' as 'Jock' Marshall. As a pungent journalist he has attacked anything and anyone standing in the way of conservation of Australia's living resources. His ability to spin a good yarn and hold the reader's interest is in sharp contrast to many other academics in their attempts at communication.

Four of the nine chapters were written by Professor Marshall, and the other five by professional biologists who showed varying skill in putting over their excellent material.

The book is subtitled 'A Guide to Anglo-Australian Cupidity Wickedness and waste', and it doesn't beat about the bush. The early settlers are shown to have found a balanced community of animals, birds, fish and plants on which the aborigines lived without causing much change in population numbers. During the first hundred years of establishing the colonies many species declined in numbers and were eliminated from some localities, but there was no extermination of whole species. There were still vast areas untouched by settlement. It was from about the 1890's that the pace of clearing and overgrazing started to have noticeable effects, and the introduced rabbit spread far and wide.

The account of the tribulations of mammals and birds by Professor Marshall, principally on the slaughter of kangaroos and koalas, and comical 'emu war' in Western Australia, with several other cases in less detail. He is particularly critical of the stupidity of politicians in submitting to pressure from greedy or ignorant farmers with no feeling for the value of native birds and animals.

Eric Worroll's chapter on reptiles hits hard at those responsible for allowing crocodiles to become almost extinct. He has a most interesting example of upsetting the 'balance of nature' with black tiger snakes and mutton birds, and rats on a Bass Strait Island.

The exploitation of fish is enumerated in a chapter by D. Pollard and T. Scott who have presented too many separate, colourless observations.

I.D. Hiscock restores some bite to the prose in his chapter on invertebrate fisheries and concludes that the species are not in immediate danger of extermination.

The chapter on plants by Professor J.S. Turner is more precise than the others, but no less readable. There are some sober figures on the decline of Victorian plants where 277 of the 2200 native species are either dangerously low in numbers or extinct. He makes a strong plea for more nature reserves.

The longest chapter is by L.J. Webb on 'the rape of the forests', showing how Australia's oldest industry, timber getting, has been carried on in a spirit of mining. The possibility of the land giving a higher financial return from forest management than from farming was dismissed by those responsible for land settlement.

Webb relates some of the heroic battles of Australia's first foresters against narrow-minded politicians over the alienation of good forest land which was quite unsuitable for farming.

'The Great Extermination' is a propaganda book, and if the reader is antagonistic from the start he may be irritated by its tone - its emphasis is on disaster. Surely things could not be so bad - or could they? Even such a critic must be impressed, however, by the diversity of the examples and the 205 references to sources of material.

This book should become compulsory reading for naturalists, agriculturists, foresters and politicians - and perhaps for all Australians - before it is too late.

----- K.G. Eldridge -----

The Wildflowers of Gormandale: by Tom Moretti.

Last Saturday afternoon we went to the Gormandale area looking for wildflowers. We travelled beyond Gormandale on the Carrajung Road to the cemetery area, where we saw quite a lot of prickly mimosa and, among the bracken and scrub a variety of flowers including sarsaparilla, rice flower, red correa, two of the heaths and possibly a third which was a deep red; eggs and bacon, sundew and pincushions (the yellow ones), and many others which I cannot name.

On the way home we stopped around the sand pit area which stands out just now because the sarsaparilla is in great profusion, with more heath, everlastings, running postman. This is an attractive area at present for members who are wanting to see the earlier of the wildflowers. This is the site of a bull-dozed hill just before Gormandale, the sand pits being on the right at less than two hundred yards from the road that leads off the bitumen and travels along the running postman area.

----- Tom Moretti -----

The Orchid and the Fly: by Mrs. E. Lyndon.

I always find members' personal observations as given in the Newsletter of absorbing interest, and Mr. Peterson's note about the orchid and the bee set me searching for a letter from the National Museum in reply to a query of mine back in October 1962. This was a small fly, apparently dead, lying inside the flower of one of the Caladenias. I wondered if it could be the pollinating agent, and I quote Mr. Burns' reply: "... The insect is a freshly emerged specimen of one of the Tachinid flies, family Tachinidae, order Diptera. These flies are internal parasites of caterpillars, and the fly larva or maggot when fully grown leaves the body of its host and falls to the ground which it normally enters to pupate. Your specimen being very freshly emerged I would think had crawled up from the ground on to the orchid flower to harden up before flying away. Being in

soft condition it could have been caught by the pollinia of the orchid which held it until it died. Such flies could well be agents in effecting fertilization in orchids." Mr. Burns went on to say that he didn't know at the moment of anyone who was studying the fertilization of native orchids, but would hold the specimen in case anyone came along who would be interested in having them. I regret that I can find no reference as to which of the Caladenias it was.

----- Ellen Lyndon -----

The Red Centre: by Mrs. Mary Hague.

For three years my friend and I had planned a trip to Alice Springs, but the opportunity did not arrive till April 27th. 1966, when we set off. We travelled by train from Gippsland to Melbourne, and then by air to Adelaide. At the airport we later boarded the 'plane for Darwin, and the visibility was perfect all the way as the 'plane was one of the older type, and did not fly at a high altitude. There was also a high passenger load as well as a lot of freight. Flying below clouds all the way we could look down on a wonderful landscape. There was a different land! The colours were true centre colours - red, orange, and purples of the ranges, and the brilliant whites and blues of the salt lakes. Torrens Lake looked like fluffy ice-cream set in pinky red.

Below, the Australian desert, with the perfect blending landscape colours with no roads or houses, gave me an unforgettable feeling of God's unspoilt world. We touched down at Alice, where the air was warm and balmy and people were wearing light summer clothes. I would have liked to stay in Alice Springs longer to enjoy the unique ways of the place, but I crammed as much as humanly possible in the short time of two days there - John Flynn's Church, the beautiful tourist shops, the art studios of aboriginal paintings, and even a local revue. We even scrummaged with the aboriginals on the street stalls. One of the days was spent visiting the John Flynn Memorial, the ghost gums and Hermannsburg Ranges, a favourite subject of Albert Namatjird, Standley Chasm with its vast walls of 250 feet of a narrow cleft gorge. The pretty Simpson's Gap where most of the Australian film "Jedda" was filmed. The gap was discovered in 1871. Close by here there grew a cork tree on the branches of which were large knobby growths caused by 'itchy' grubs. We kept well clear of these as we were told that if one of the grubs got on the skin it caused an agonising itch.

There was not a great deal of wild life to be seen, owing to the prolonged drought that had broken only five months before our visit, but we saw flocks of black cockatoos. Back in Alice Springs we visited the unique opal collection of Mrs. H. Jenkins. She and her late husband had been prospectors all their lives, mostly at Lightning Ridge, where the most precious of opals are to be found. We managed also to visit Pitchi Ritchi, meaning 'For the People', but were disappointed that the owner was away, and we could not learn much of the meaning of the beautiful sculptures depicted in natural stone. We learned afterwards that they were the work of William Ricketts, who has a great sympathy for the aboriginals and their customs.

Unfortunately vandals had damaged the sanctuary that he had established and had abandoned for a while, which was a real tragedy. Ricketts had a beautiful memorial to Albert Namatjira which was in a cave, and set in colourful gemstones with a painted portrait of the painter in the centre. In the grounds of Pitchi Ritchi also was the first camel whip or whim used to draw water for stock of 400 head which had been brought to the district. Incidentally, Pitchi Ritchi is situated at Heavitree Gap, the gorge through which is the only way in to Alice Springs by road or rail. Through this gorge flows the Todd River after heavy rains only, because the water seeps through the sandy bed of the river quickly. Along and in the beds of the rivers grow the beautiful gums whose roots derive moisture from the underground streams.

The ranges, McDonnell, James, Hermannsburg and others are so vast and wonderful - my pen cannot describe them. The millions of years of weather ravages have carved the spectacular gorges of Standley Chasm, Simpson's Gap, Ormiston Gorge, Ellery and Finke Gorge, Heavitree, Emily, Jessie and Honeymoon Gaps, and many more. We had three days at Glen Helen and Palm Valley touring through the untracked country. We saw the Cycad Palms, which are stated to grow nowhere else in the world - the wild fig trees, which provided food for the aboriginals. In Palm Valley, because of the presence of water, there were many birds, parrakeets, doves, budgerigahs; there were also lizards, one of which was identified by our guide as a 'bicycle' lizard. While having our picnic lunch and billy tea, a butcher-bird came quite close, sharing tidbits. We encountered stockman also having a meal while waiting for other cattle musterers, and found out much about life in that region from Murray, the white stockman of the party.

Around the Finke Valley the country was magnificent, a picture that will never be erased from my mind's eye was the sight of the rising sun gilding a wide valley where a veil of mist hung low, and where there were rocks shaded colours of beige, blue, violet, orange, in fact all the colours of the rainbow. In the morning too the first calls of the birds, and then the blaze of glorious colour as the sun touched upon the rocky outcrops. This area was once the private country of the aborigines, reserved for initiation ceremonies etc.. Alas, it is ^{not} the haunt of the free native of the country any more, and it was sad to see these people wandering aimlessly around the humpies and shacks at Hermannsburg Mission.

----- M. Hague -----

(Pitchi Ritchi, near Mount Blatherskite (the term 'mount' a gross exaggeration) at the 'Alice', has become a place of legend, where fiction has apparently outpaced fact. Even 'Walkabout', a reputable magazine, referred to the owner, L.J. Corbet, as an eccentric millionaire, in an article published in its March issue. I believe that it started off as an orange grove, saw such interesting personalities as George Chapman, the only really successful miner of gold from the 'Granites', and Billy Ricketts, who probably found sanctuary there. There are many of his appealing sculptures there, imaginatively set around the area which is Pitchi Ritchi. It is run as a tourist attraction, and is undoubtedly a most colourful one. (Ed))

The Ferns of Darlimurla: by Mrs. Ellen Lyndon.

Since my introduction, with other Club members, to the shrinking forests of Darlimurla by those enthusiastic local boys, I have managed many quiet forays into the beautiful fern gullies to listen to the Lyrebirds and to fossick for mosses, ferns or fungi. The all-too-small reserve around the Big Tree (Mountain Grey Gum) is located on the bank of the Little Morwell River, and the stream banks are clothed with many different ferns. Perhaps the most interesting of these is the very robust form of the Soft Water-fern (*Blechnum minus*) growing in close company with the Hard Water-fern (*B. procerum*). To our hawk-eyed member Jim Peterson goes all the credit for this one. I'm afraid I dismissed it at a glance as just another clump of the Hard Water-fern as the two are superficially alike. Placed side by side however, the two fronds are very different. The pinnae on the Soft-fern dwindle in size until the lowest ones are short and rounded. Whereas those of the Hard fern are more or less the same length and stop short at that size. There are, of course, other differences but this is the most obvious one (when it is pointed out !)

Our two local Tree-ferns are well represented and so is the King Fern. It is not often one finds the Fan Fern over this way, but the Spreading Fan-fern (*Sticherous lobatus*), forms positive jungles on the small flat across the river. It may be accompanied by a close relative, the Silky Fan-fern (*S. tener*), which is also common in Victoria. The delicate Batwing Fern occurs in shaded places; three small ferns may be found in the bush, the Common Maidenhair, the Necklace and the Screw Fern; Scrambling Coral-fern fills many of the gullies and the tough yellowish Gristle Fern grows on the ridges; Fishbone Water-fern and Mother Shield-fern like the stream side. In a deep wet glade of tall tree-ferns I came on a rotting log supporting a nice spread of Rumohra, the Leathery Shield-fern. There are obvious gaps in this list that we will probably fill as time goes on, such as the complete absence of the Filmy Ferns and others that grow so well in Foster's Gully not so far away.

<i>Dicksonia antarctica</i> .	Soft Tree-Fern.
<i>Cyathea australia</i> .	Rough Tree-fern.
<i>Todea barbara</i> .	King Fern.
<i>Sticherous lobatus</i> .	Spreading Fan-fern.
" <i>tener</i> .	Silky " "
<i>Histiopteris incisa</i> .	Batwing Fern.
<i>Polystichum proliferum</i> .	Mother Shield-fern.
<i>Adiantum aethopicum</i> .	Maidenhair Fern.
<i>Asplenium flabellifolium</i> .	Necklace Fern.
<i>Lindsaea linearis</i> .	Screw Fern.
<i>Gleichenia microphylla</i> .	Scrambling Coral-fern.
<i>Rumohra adiantiformis</i> .	Leathery Shield-fern.
<i>Blechnum cartilaginium</i> .	Gristle Fern.
" <i>nudum</i> .	Fishbone Fern.
" <i>procerum</i> .	Hard Water-fern.
" <i>minus</i> .	Soft Water-fern.

The Pigmy Possum and Other Fossils: by the Editor.

The finding of the pigmy possum at Mount Hotham by Dr. K.D. Shortman and Mr. D.F. Jamieson on the 19th. August last and its identification as a species believed to be extinct is exciting and has some interesting implications and possibilities. The possum has been placed in the genus *Burramys* and probably the species *parvus* (meaning appropriately 'little') and, previously, had been known only from bones found in the fossiliferous silts of caves, including caves in the Buchan area. It was believed to have been extinct since late Pleistocene, and dating had placed the age of bones found at about 20,000 years B.P.

The fossiliferous silts at Buchan had been reported by Stirling as long ago as 1889, Spence and Walcott (1911) reported the finding of a skull *Thylacoleo* and of large kangaroo bones. It was apparently not until 1960 that many of the bones in the caves were identified and dated, including *Burramys* the possum.

Recent references to the finding of the pigmy possum have compared the importance of the find with that of the large blue fish of a type never seen before, by the Captain and crew of a trawler towards the end of 1938, off the east coast of Africa. The fish measured 5' long and weighed 127 lbs. It was identified as a *Coelacanth*, fossils of which were well known, having been found in abundance in rocks of the Cretaceous Age, over 60 million years ago. This was the age of the Dinosaurs which dominated life on land - some of which were up to 40' in length and 20' high.

It was believed that the *Coelacanth* had died out at the end of the Cretaceous as no fossils had been found in rocks laid down during the next 50 or so million years to the present. After the initial find, another was caught in 1952, and some 20 have been caught since then in the volcanic islands between Madagascar and the mainland of Africa.

The importance of finding a living specimen of the *Coelacanth* however lay in its evolutionary significance - as a living link with the past, and through a distant relationship with man. Being one of the group *Crossopterygii* (lobe-finned fishes) its structure differs from that of modern bony fishes, the fin structure being more akin to a limb. It is said that from the *Crossopterygians* that forsook the water and used their lobed fins as an aid to locomotion developed the early amphibian forms and eventually the evolutionary lines leading to man.

(G.T.S.)

Excerpts from "Conservation and the Community" by R.G. Downes, in the current quarterly issue of "Victoria's Resources".

"Conservation is a man-made concept and is concerned with his attitude toward his environment and its resources. It is really the study of how man can satisfy his physical and aesthetic needs from the resources of his environment without spoiling its capability to go on satisfying those needs... Conservation is everyone's responsibility if man is to survive as a species ... ! "

Editor: G.T. Scanlan, c/o L.V.C. Hospital, Yallourn, Vict.

----- LATROBE VALLEY FIELD NATURALISTS' CLUB. -----

OFFICE BEARERS:

President: Mr. E. Homann.
Senior Vice-President: Mr. J. Peterson.
Vice-Presidents. Mr. G.T. Scanlan, Mr. F. Jones.
Treasurer: Mr. E. McElroy. Assistant: Mrs. F. Kinniburgh.
Excursion Secretary: Miss Nancy Rossiter. Assistant: Mrs. L. Padfield.
Publicity: Mr. R. Stevens. Editor: Mr. G.T. Scanlan.
Secretary: Mr. S. Belgraver, 179 Lloyd Street, Moe.

OBJECTS OF THE CLUB:

1. The study, enjoyment and conservation of nature;
2. The encouragement of an interest in the various aspects of natural history;
3. The holding of regular meetings and arranging for suitable speakers;
4. The organising of excursions or field days.

MEETINGS OF THE CLUB:

General meetings of the Club are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m. The subjects for talks at general meetings are published in the monthly Newsletter. Visitors are always welcome.

EXCURSIONS:

Excursions of the Club are in the nature of field days to places of botanical interest, or to study the fauna or geology of an area, with competent leaders.

SUBSCRIPTIONS:

The Club annual subscription is 10/- for a single person, 1/- for juniors, and 15/- for a family. The subscription covers the monthly Newsletter.

NEWSLETTER: Contributions are invited from members for the Letter which is published monthly. They should be addressed to: Mr. G.T. Scanlan, L.V. C. Hospital, Yallourn.



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LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

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~~September 1966~~

14 OCT 1966

1966.

Dear Follow Field Naturalists,

General Meeting Friday 28th. October 1966:

The Speaker at the October meeting will be member Mr. Frank Jones. Frank is an active member of the Victorian Ornithological Research Group (VORG) and members can be assured of an interesting, valuable talk on birds, the subject is 'Birds and Bird banding', illustrated with some excellent coloured slides. The meeting will commence at the usual time, 7.30 p.m., at the Yallourn State School. Visitors, as always, will be welcome.

Excursion Saturday 29th. October:

This is to be to Little Snake Island, off Port Welshpool, for the purpose of observing the flora on the island. Members are asked to be at the shore side of the jetty at 10.30 p.m. in order that an early start may be made by boat for the island. Be warned that it will be necessary to step from the boat into about 18" to 2' of water and wade to the island. This means that members should be suitably dressed (or undressed) for the occasion. Leaders will be Messrs. R. Austin and N. Rossiter.

Those who do not wish to risk getting the lower limbs wet will find plenty of botanical and other interest ashore, and should not be deterred from attending the excursion by the above warning. There is the very interesting quarry about a mile north of the town, on the route in, where carbonaceous, fossiliferous shales and sandstones etc. may be seen.

Mrs. Padfield, the Excursion Secretary, will be pleased to provide particulars regarding the route, transport for those not wishing to take, or not having their own cars etc..

Excursion to Buchan - Saturday & Sunday 19th. & 20th. November:

This is the outing to which so many of us have been looking forward with pleasant anticipation. It had been hoped to have printed an itinerary in this Newsletter, but a reply is still awaited from Dr. Talent, the leader for the weekend. Members can be assured of a most interesting and rewarding two days - the only matter over which the Executive has no control, and regarding which no guarantee can be given is the weather. We have been remarkably fortunate in this respect however, and hope that good fortune is with us for this forthcoming treat.

Members who intend to camp may do so at the Caves Reserve, where facilities are excellent. Others requiring accommodation may try the Caves Hotel (perhaps not Chevron standard), the Buchan Motel, or the Homelough (appropriately named) Guest House at Buchan. There is a modern Motel/Hotel at Nowa Nowa, about 20 miles from Buchan, and Bruthen is not too far from Buchan and has a good hotel. Nowa Nowa would be my choice. If at all possible please camp at the Reserve at Buchan. On Saturday night it is hoped to have a talk by Dr. Talent, and this would also provide members with the opportunity to get together socially and to share experiences and enthusiasms of a natural history nature.

Again, for particulars contact the Excursion Secretary.

Notes From the Executive Meeting: This was held at the home of Mr. & Mrs. Jim Peterson on Friday the 7th. October.

The Apex Club and Conservation: Following a suggestion that the L.V.F.N.C. might be able and willing to advise ways and means by which an Apex group could play a part in the matter of conservation, the Executive has agreed to meet what will now be representatives from several Apex groups to explore the position by discussion. Before this meeting can take place however, the members of the Executive must themselves meet (on Friday the 14th. October) in order to arrive at some agreement on a definition of terms etc.. Just what does the term 'conservation' mean to us; in what way can the objectives of conservationists be effected, and what could we advise the Apexians to do in this connection? Whatever the outcome, it is very encouraging to have this expression of interest from the members of such a powerful and lively organization.

It is hoped to report further on this matter in the November Newsletter.

Common Names of Plants: Miss Jean Galbraith would be pleased to receive from members (or others) the popular names of plants (native or other) to be found in their vicinity. Single items, with as much description as possible, or lists will be equally acceptable and appreciated.

Mr. W. Jernakov: Member Mr. Jernakov has been absent from meetings and excursions of the Club, and members will regret the fact that his inability to attend has been due to quite serious illness. We all wish him a speedy and complete recovery, and a return to an active interest and participation in Club activities.

The Newsletter: There are now several members who joined the L.V.F.N.C. for the sole purpose of receiving the monthly Newsletter, being unable to attend the meetings and excursions of the Club. This is very gratifying and encouraging - it helps to publicize the Club and its activities; it helps (we hope) to provide a record of what is known of the natural history of Gippsland; and it helps to spread the message which, to many of us, is the principal motivating force behind our membership of the Club, which is, briefly, the urgent need to conserve the natural resources of the State and the country.

Anyone may arrange to receive the Newsletter by paying the annual subscription of \$1 - and it is posted monthly (obviously). Contributions are invited from members on any aspect of natural history, as are suggestions for improvements in the content matter etc. of the Newsletter.

The next meeting of the Executive will be held at the home of the President, Mr. E. Homann, 34 Hennessey Street, Mooc, at 7.30 p.m.. on Friday 4th. November 1966.

Conservation, and How Much There is Still to Learn: By Mr. Jim Peterson.

How little we know of the 'balance of nature' - how each species is held in check by natural enemies. Take away those controls and the particular species will grow and reproduce at a greatly accelerated rate. Then, as the 'run away' interferes with man another species becomes a pest.

Reduction of natural enemies can be brought about in two ways - by the destruction of enemies such as with inadequately tested insecticides - or by the introduction of the species to a country where natural enemies are non-existent. We all know examples of the latter - plants introduced to this country which we now classify as pests. Australian species introduced to other countries can become pests too. Such is the case with species of Australian *Hakea* introduced to South Africa. It has grown into a pest of quite large proportions, and the more it is cut and burnt, the more seedlings are produced and the thicker the growth becomes. So great is the problem that South Africa has sent a scientist to Australia to study the *Hakea* in its natural environment and to endeavour to discover what has kept it in check here. My informant, the head ranger of Girrakool National Park near Gosford in N.S.W., spent some time with the scientist, and after a great deal of work it was found that the main control was an insect which attacked the seed. The use of the insect to control the runaway *Hakea* in South Africa is being investigated. Indiscriminate introduction of the insect to South Africa could, however, have serious side effects. It may attack other plants as well as *Hakea* and, as it would be no longer in its natural environment, might not have enemies to control it. It could conceivably develop into a pest of even greater proportions than the one it was meant to control.

This is an example of the need to 'hasten slowly', in order to study the effects of changes likely to be brought about. It is necessary to always have the means of studying ecological conditions, if the answers to future problems are to be found. An essential ingredient to this study is that adequate samples of all types of such conditions are left for study. In other words, good samples of all types of unalienated land must be conserved, keeping in mind the various combinations of soil, temperature and moisture conditions which bring about different ecological interactions.

The few experts that there are in this field - and how pitifully few ! - are greatly concerned at this lack of land reserved for the future. And they being so few, theirs are voices crying in the wilderness. However, the thoughts of serious field naturalists are with the experts is so much as they (and we) are opposed to the wholesale and indiscriminate destruction of the remaining bushland. But what are our reasons for a similar concern ? If asked, the majority of us could only reply: "Because we like it", a reply which is not in itself particularly convincing if the areas are required for other purposes.

We must think more and more of valid reasons for conservation, in addition to the obvious aesthetic reasons. Above all we must think clearly and uniformly, and use our considered arguments to convince others of the great need for conservation.

Flowers of the Sydney Sandstone: by Mrs. E. Lyndon.

We were in Sydney during the first week in August, staying with friends in one of the new housing estates on the slopes of Collaroy Plateau where the hillside runs down to the shores of Narrabeen Lagoon.

It seems to me that vast areas of this sandstone country, protected by its very roughness, has survived in more or less natural state until quite recently when the tree-girt rock shelves have suddenly become desirable and fashionable to both architects and home-builders, especially if there is a view of lake or sea. Subdivided into very small and expensive lots modern homes are perched at all angles and levels, literally stuck to the rock like swallows' nests. Garden possibilities are endless. Tropical trees, ferns and orchids, things we regard as indoor plants, thrive right out in the open in the shade of the picturesque Angophoras (trees closely related to the eucalypts), that have been spared usually two or three to a block. There is a very ornamental She-oak also that, when permitted to stand, blends beautifully with modern architecture. It was not, however, to discuss the astonishing ways of N.S.W. home builders that I began to write this but to give some sort of a background picture against which the wealth of the native wildflowers is still displayed there, battling for a place amongst the devastation and debris of the tradesmen. We found that within a stone's throw of where we were staying the flowers of the sandstone were just coming to their best.

Cascading down through clefts in the stone and matting across the rough footways were purple sheets of Hardenbergia vine. Clumps of the handsome Sydney Boronia (*B. ledifolia*) glowed dusty-pink in the warm sunlight, turning to almost red when the flowers were closing. Surely a most desirable garden shrub although the foliage, when crushed, has a most unpleasant odour. The eggs-and-bacon tribe of Pultenaea, *Dillwynia* and *Bossiaea*, helped along by various Guinea-flowers supplied brown and golden colour. There was the delicate pink of the Beard-heaths and waxy white of Swamp-heaths; a very robust form of *Sprengelia*; trails of the red-bellied Sydney Heath (*E. longifolia*); blue of *Dampiera* and *Hovea*; magenta *Tetratheca*; cream Wedding Bush; Flannel Flowers; Correas; Rice-flowers; the pink and red and the yellow Five-corners (*Styphelia*); several Wattles; grey, red and mauve *Grevilleas*. Vacant blocks were gardens of colour, ready made, a mixture of all these. Batwing-fern and one of the lacy Ground-ferns and floccy heaps of one of the Cord-rushes clothed man-made drains and wastewater falls.

The steep and winding roadbeds were sealed (we thought the crooked drives, going either straight up or down to the garages were suicidal), but the pavements, or rather where the paved footpaths will eventually be, were still nature strips. On one such street corner, on the harsh and apparently earthless rubble backed by a four foot jutting shelf of stone in an area roughly ten feet square we counted fifteen different flowering shrubs, any one of which I would have been thrilled to have in my garden. But there is a strange and depressing feature of these new housing estates that I find very disturbing. Nine out of ten of these new home owners are busily clearing up their small 'scrub' and burning it. They are bringing in garden loam and filling up their rock pockets with pansies and stocks and wait for it - geraniums!

I think it would be safe to say that Victorian gardeners are far more interested in and knowledgeable about their native Australian plants than are their N.S.W. cousins. Perhaps it is because nature has been so lavish with her flowers in the warmer climate that people living among them see no virtue in 'things from the bush'.

There is still a large area on the shores of Narrabeen lake unspoiled save for bridle paths. It contains a wealth of birdlife, ferns and tropical trees, including a large grove of Cabbage Palms, all producing a crop of seedlings beneath. They give the damp flat a tropical air yet up on the ridge the Grass-trees drape themselves over the rock and all the sandstone flowers are blooming again in arid state. On a day tour through Kur-rin-gai Chase National Park we saw the red bells of Blandfordia and a little forest of empty seed-pods around them. Another striking flower was the huge red-budded spikes of Doryanthes, the Giant Lily, towering well over my head. Somewhat disappointing when the flowers unfold, for they rather resemble canna lilies. This one grew plentifully near Gosford.

It is heartening to see many reserves, both large and small, dotted through the outer suburbs and indeed throughout the State, where people will be able to enjoy the wilderness in a nearly natural state through all the years ahead.

----- Ellen Lyndon -----

The School Pine Plantation: by Mrs. B. Thompson.

At the Traralgon South School there is a pine plantation. Of recent years the trees have been thinned and the wildflowers are coming up again in the area. Miss Jean Galbraith told us that many years ago this was a wonderful spot for wildflowers. Now, under the trees children have found *Acianthus exertus*, *Corybas diemenicus* (the Purple Helmet Orchid); a beautiful stand of *Pterostylis concinna* (Trim Greenhoods); *Hardenbergia violacea*; *Correa reflexa*; *Billardiera scandens* (Apploberry); *Pultenaea gunnii* (Golden bush-pea); *Pterostylis nutans* (Nodding Greenhood); *Dianella tasmanica* (Tasman Flax Lily); *Burchardia umbellata* (Milkmaids); *Clematis aristata*; *Cassinia aculeata* (Dogwood); *Epacris impressa* (Common Heath); and *Leucopogon virgatus* (Common Beard Heath); *Stylidium graminifolium* (Trigger Plant).

----- Bon Thompson -----

The Orchid and the Fly: Some Further Notes by Mrs. B. Thompson.

I read with interest Mrs. Lyndon's article and would like to add a few observations we have made.

Last year, one warm humid day we found *Caladenia angustata*, and noticed a small black fly wedged in the flower. We removed the fly carefully as we wished to examine the flower more closely. We thought the fly, which was laid on the ground, was dead, but after inspecting the flower discovered the fly had gone. We saw many more flies in these flowers during the day, and came to the conclusion that although they appeared dead as there was no movement at all, they were really alive.

We went back again while the flowers were blooming but did not see the flies again. We thought perhaps the humid weather might have had some influence.

During the autumn this year we had the pleasure of seeing another fly at work on the orchid, Parson's Bands (*Eriochilus cucullatus*). This fly was much bigger and had grey-green transparent wings. It was definitely feeding on the orchid. Fortunately the fly alighted just as Mr. Thompson pressed the lever on the camera. The movement spoilt the slide but as he was able to take another straight after, we have a good record. We watched the fly go on to another flower.

Unfortunately we did not think to try to capture either of those flies for identification, but will know better next time.

----- Bon Thompson -----

Burleigh Heads National Park: by E. Homann.

About midway along the 20 miles of Queensland beach named the 'Gold Coast' is the large headland called 'Big Burleigh'. The houses of Burleigh Heads are at the northern foot of the headland and the southern boundary is Tullebudgerah Creek and the suburb of Palm Beach. This headland is a beautiful small national park. Three beautifully graded paths lead through it, one closely following the shore-line, the second going to the top with a lookout commanding a splendid panoramic view of the coast-line, while the third keeps to the lower levels inland.

The headland is heavily wooded with sub-tropical jungle on the north side and eucalypt forest on the southern slopes. In one area there is a spectacular outcrop of basalt in columnar formation.

This park has a population of koalas - on the nearby highway is a road sign which says: "Beware of Koalas Crossing At Night" - and numbers of a small wallaby locally called Pademelons. Here too is the Scrub Turkey, which builds an incubating mound of forest debris to hatch its eggs.

----- E. Homann -----

Latrobe Valley Eucalypts: By Mr. Bob Auchterlonie.

(This is the first of two or more articles on the eucalypts by Mr. Auchterlonie. (Ed).)

It will be readily conceded that Eucalypts fill a dominant place in the Australian landscape. From both the aesthetic and economic viewpoint, they are our most important trees. Moreover, they are almost exclusively Australian, as, with the exception of some half dozen species extending to the islands to our near north, they occur naturally nowhere else in the world. Even our near neighbour across the Tasman, New Zealand, has no native eucalypts.

The identification of the various species met with in our rambles is not always easy. Most people are content to call them all 'gum' trees and leave it at that, but the enquiring field naturalist will want to go further into the matter. The genus *Eucalyptus* is a very large one, comprising over 500 species. Of these, some 60 or 70 occur in Victoria, and between 20 and 30 in the area covered by our club. Various keys to identification are available, some embracing the whole genus, others the Victorian members of it. Searching through this immense number is a formidable task, so it was felt that a key to the local species would be a help to some of our newer members. With this object in view, the key which follows has been drawn up, including only those species found in the area from the Latrobe Valley to the coast.

Of the keys to identification existing, that of W.F. Blakely is perhaps the most generally accepted. It is based in the first instance on the fact that the anthers of eucalypts display quite a wide variation in shape and manner of opening, enabling them to be classified into groups, which are then further classified by other characters. In practice, this method is of course limited in its application to the flowering period of the trees. Available line drawings of buds and fruits, while useful in some respects, can be quite misleading in others, for although they may depict the individual bud or fruit faithfully, they are apt to ignore their proper arrangement and number per umbel.

The genus *Eucalyptus* is acknowledged to be a difficult one for a number of reasons. There is superficially a close resemblance between certain species, particularly in the bark and habit of growth, influenced by soil, altitude and locality, and whether growing singly or crowded together in forests. Dramatic changes in foliage occur, from the juvenile stage, through various intermediate forms to the final mature stage. Buds, flowers and fruits (capsules) when available, are more reliable, but are sometimes absent, and usually high out of reach. A search of the ground under trees will often yield broken off sprays or capsules, but when two or more species are growing in proximity, it may not be easy to decide which tree they have come from. The same problem arises in linking juvenile seedlings with mature trees.

The mature leaves of eucalypts may be one or other of two distinct types, the isobilateral type, rare among broad-leaved plants, in which there is little or no difference between the two surfaces of the leaf, and the dorsi-ventral type common to most broad-leaved plants, in which upper and

lower surfaces are distinct, the upper surface being glossy, with flush veins, and the under surface dull, with veins standing out. All of the Latrobe Valley species have the former type of leaf, although there are two in East Gippsland with dorsio-ventral leaves. If any tree with this type of leaf is found here, it would most likely be one of these, Gippsland Mahogany, which has been widely planted along roadsides and other places, including the row of mature trees at the bottom of the Gippsland Arboretum. The West Australian Red-flowering Gum provides another example of this leaf form.

The inflorescence takes the form of an umbel from the leaf axils in all local species except the Boxes, which also form terminal panicles of bloom. The number of buds in an umbel, and their arrangement gives us an important clue to identification. Some species have seven buds in geometrical arrangement, six of them in sub-radial pattern, with one central bud; others have a random cluster. It should be noted that the number of buds comprising an umbel could be any number less than that stated, owing to injury or failure to develop.

The bark referred to in the key is that of trees which have passed the juvenile stage. The key does not include alpine or East Gippsland species. In use, the reference number on the right is again picked up on the left, and followed through until identity is established. Finally, this key is not put forward as an infallible guide, and perhaps one should add those escape letters beloved of the accountants, "E. & O.E."

- | | | |
|----|--|----|
| | Bark smooth, except on base of trunk, periodically shed, | 1. |
| | Bark rough, fibrous or stringy, persistent, | 2. |
| 1. | Number of buds in a normal, complete umbel, three, | 3. |
| | Number of buds in a normal, complete umbel, more than three, | 4. |
| 3. | Buds and capsules rough and warted, over $\frac{1}{2}$ " diameter ... <i>E. bicostata</i> . | |
| | Buds and capsules smooth, under $\frac{1}{2}$ " diameter, | 5. |
| 5. | Juvenile leaves green, lance shaped, <i>E. viminalis</i> . | |
| | Juvenile leaves glaucous, round, ... <i>E. rubida</i> . | |
| 4. | Number of buds in a normal complete umbel seven, regularly arranged, | 6. |
| | Number of buds in a normal complete umbel, seven to ten, irregularly arranged, leaf veins longitudinal, ... <i>E. pauciflora</i> . | |
| 6. | Footstalks of umbels flattened or angular, | 7. |
| | Footstalks of umbels round, | 8. |
| 7. | Footstalks of umbels flat, buds stalked, tall tree, ... <i>E. cypellocarpa</i> . | |
| | Footstalks of umbels angular, buds stalkless, small tree of the coastal plains, <i>E. kitsoniana</i> . | |
| 8. | Umbels frequently in pairs, tall shaft-like tree, ... <i>E. regnans</i> . | |
| | Umbels always borne singly, | 9. |
| 9. | Bud cap much longer than capsule, rim and valves projecting, <i>E. teretis</i> . | |
| | Bud cap same length as capsule, rim and valves flat, cornis. | |
| | ... <i>E. ovata</i> . | |

2. Surface of bark more or less furrowed longitudinally, 10.
Surface of bark more or less even, not furrowed, 11.
10. Bark stringy or ropy, the outer portion loosely attached and removable in long strands, 12.
Bark compact, firmly attached, removable only in short pieces or not at all, 13.
12. Number of buds in a normal complete umbel seven, regularly arranged, 14.
Number of buds in a normal complete umbel more than seven, random arrangement, 15.
14. Juvenile leaves rounded, very glaucous, ... *E. cephalocarpa*.
Juvenile leaves lanceolate, light green, ... *E. huberiana*.
15. Juvenile leaves rough and hairy, capsules small, ... *E. scabra*.
Juvenile leaves smooth, not hairy, capsules larger, 16.
16. Juvenile leaves thick and glaucous, small to medium size tree, *E. consid-*
eniana.
Juvenile leaves not glaucous, tall tree, 17.
17. Capsule longer than broad, valves deeply recessed, ... *E. obliqua*.
Capsule broader than long, 18.
18. Capsules stalkless, with conspicuous domed rim and valves, .. *E. baxteri*.
Capsules shortly stalked, with flush rim and valves, .. *E. muelleriana*.
11. Bark flaky, scaly, orchelocored, Boxes, 19.
Bark sub-stringy, interlaced, leaves peppermint scented, 20.
10. Inflorescence umbels only, valves protruding, ... *E. bridgesiana*.
Inflorescence umbels and panicles, valves recessed, 21.
21. Leaves almost or quite as broad as long, very glaucous, *E. polyanthemus*.
Adult leaves lanceolate, 22.
22. Juvenile leaves elliptical, stalked and glaucous, .. *E. melliodora*.
Juvenile leaves heart-shaped, and stalkless, ... *E. bosistoana*.
20. Medium size tree with ascending trunk, juvenile leaves pale green; ...
Low tree with short crooked trunk, juvenile leaves glaucous, ... *E. radiata*.
E. dives.
13. Bark very dark to black, intensely hard and deeply furrowed, leaves
Greyish-green, ... *E. sideroxylon*.
Bark on trunk greyish-brown, branches smooth-barked and white, leaves
dark green, ... *E. sieberiana*.

Next month.- Brief notes on each of the individual species, and the localities where they may be found.

----- Bob Auvhterlonie -----

A Queensland Jasper Farm: by Mr. E. Homann.

One of the great advantages of the Queensland Gold Coast, apart from the climate, is the ease with which one may leave it to travel into rugged mountain country which is largely volcanic in origin.

Leaving the Pacific Highway at the village of Oxenford and taking the Mount Tambourine Road, the Jasper Farm is reached in about seven miles. Here the farmer combines diverse activities - a small dairy herd, a small banana plantation, and a small shop with the appropriate machinery for converting stones into semi-precious jewellery. For a fee of \$1 one is permitted to go to the jasper deposits on the farm and carry away as much jasper as one desires and is able. The jasper was situated on a very steep slope at the head of a creek and below sheer cliffs. At a casual glance it looked very much like a quarry where basalt rock was being won, but a closer inspection of the rock showed a tremendous range of colours ranging from reds to browns and yellows. These were all volcanic rocks - I think, rhyolite or haematite. Jasper is a cryptocrystalline variety of quartz, opaque, and is found in many colours, being much sought after by amateur lapidaries.

It was not long before we found veins of jasper and indeed boulders of the same material. Colours were fawn, a bright pink, and another in shades of brown that perhaps could be called mahogany. Having collected enough - and it didn't seem very much - I realized how heavy rock specimens can be as I staggered back down the steep track to the car.

----- E. Homann -----

More Trees and Shrubs For the Birds: by Mrs. E. Lyndon.

To the list of trees and shrubs that attract the birds we should add the common tree lucerne (Cytisus) with the white flowers. Two backyards down from ours is an old warrior of this species that is noisy with honeyeaters most of the day. The Spinebills enjoy it and so do the White-ears and the Wattlebirds. This month of July (now past) brought two of the excitable creatures the Yellow-winged and the Crescent Honeyeaters to squabble in the tree. This part of the town is well equipped with parks and long established gardens and a surprising number of birds pass by my kitchen window each day.

These honeyeaters make the welkin ring with their thrilling calls and lure me out on to the back fence with the glasses when I should be attending to less important duties. But: "a poor world this if, full of care, we have no time to stand and stare ! " The lucerne is a very fast growing small tree that may be kept to any size and takes up little room in a corner of the yard. Put it near the kitchen window if you wish to enjoy bird watching with breakfast.

----- E. Lyndon -----

----- LATROBE VALLEY FIELD NATURALISTS' CLUB. -----

OFFICE BEARERS:

President: Mr. E. Homann.

Senior Vice-President: Mr. J. Peterson.

Vice-Presidents. Mr. G.T. Scanlan, Mr. F. Jones.

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Secretary: Mr. S. Belgraver, 179 Lloyd Street, Moe.

OBJECTS OF THE CLUB:

1. The study, enjoyment and conservation of nature;
2. The encouragement of an interest in the various aspects of natural history;
3. The holding of regular meetings and arranging for suitable speakers;
4. The organising of excursions or field days.

MEETINGS OF THE CLUB:

General meetings of the Club are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m. The subjects for talks at general meetings are published in the monthly Newsletter. Visitors are always welcome.

EXCURSIONS:

Excursions of the Club are in the nature of field days to places of botanical interest, or to study the fauna or geology of an area, with competent leaders.

SUBSCRIPTIONS:

The Club annual subscription is 10/- for a single person, 1/- for juniors, and 15/- for a family. The subscription covers the monthly Newsletter.

NEWSLETTER: Contributions are invited from members for the Letter which is published monthly. They should be addressed to: Mr. G.T. Scanlan, L.V. C. Hospital, Yallourn.

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LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

Registered at the General Post Office Melbourne for transmission by Post as a periodical.

Issue No. 36

November, 1966

Editor: G.T. Scanlan, c/o L.V.C. Hospital, Yallourn. Vict.

Dear Fellow Field Naturalists,

Excursion to the Buchan Area on Saturday 19th. - Sunday 20th.
November 1966.

Members will arrive at Buchan as circumstances determine - some travelling and camping on the Friday as well as the Saturday nights. Others will travel there on the Saturday morning. The programme for the two days commences with a departure from the Buchan Caves Reserve at 9 a.m. on Saturday, when it is intended to go to East Buchan in order to study, under the expert guidance of Dr. Talent, the sequence of rocks - volcanic, dolomites, limestones etc., to have a look at the small lead and barite mines there, and possibly to do some botanizing. For those members who are unable to arrive at Buchan by 9 a.m., instructions will be left at the Caves Reserve as to the manner in which they can catch up with the main party.

On Saturday afternoon the party will again leave the Caves Reserve at 1.45 for a visit to Bare Rock for the purpose of studying the botany of the area and to study the sedimentary rocks which have been derived from a volcanic terrain; and (see the glint in the eyes of the gemstone fanatics ?) a visit to the W-Tree common opal locality.

After tea on the Saturday there is to be a lecture by Dr. Talent entitled: "Discovering the Ecology of the Past".

Sunday Morning: It is intended to leave the Caves Reserve at 9 a.m. and travel to Murrindal in order to study problems of interpreting past ecology.

Lunch on Sunday will be at W-Tree Falls Bridge, which is about 14 miles north of Buchan, and will be followed by a study of the botany of the area for those who can stay on a little longer. This area is noted for its flora, and has some outstanding scenic attractions which will add to the enjoyment of the excursion.

It is expected that members from several of the other field naturalists clubs in Gippsland will join the L.V.F.N.C. members on this excursion. The area has been chosen particularly for its great variety of interest to field naturalists, and because Dr. Talent has most generously agreed to lead members to some understanding of the geological features of an area in which he has worked for some years, with other workers, and alone, in deciphering the story of its making.

The map of the Buchan area in this issue was traced from that included in Part 11 of the Geological Survey of Victoria Memoir No. 21, prepared by Drs. Leichert and Talent in 1958. Part 11, dealing with the Geomorphology of the area, and its economic geology, was compiled by Dr. Talent, after a number of years of investigation of a wider area than we will have time to be interested in on this excursion. This map shows the location of the caves in the Buchan area, and it will be seen that they are numerous and not confined to the Caves Reserve area.

General Meeting Friday 25th. November 1966.

Mr. Harry Liefman, Secretary of the L.V. Gemmological Society will speak on 'Local Gemstones'. The meeting will be at the usual time of 7.30 p.m. and at the Yallourn State School.

The excursion on the Saturday will be to the Strezleckie's, details of which will be made available at the general meeting, and on the Sunday, 27th. November, members are invited to join with members of the L.V. Gemmological Society with the object of finding agate and jasper. Meeting place will be the Morwell Post Office at 10 a.m., and the party will proceed along the Princes Highway to Rosedale, thence to Longford on the South Gippsland Highway, turning into the Dutson Road and on to the Dutson Quarry.

Reserve on Whitelaw's Track:

Mr. Peterson has advised that a Fauna and Flora Reserve, consisting of approximately 105 acres in the Parish of Yinnar and the County of Buln Buln has been proclaimed in a recent Government Gazette. A gravel reserve on the area has been retained.

Excursion to Foster's Gully December 18th: This will be for the purpose of viewing the Tree Orchid, the principal attraction of this Reserve, and will be a short afternoon visit. More details from the Excursion Society.

Rare Orchid On Little Snake Island: by E. Homann.

We were fortunate to find several flowers of *Caladenia aurantiaca*, the Orange-tip Orchid growing among the bracken in the centre of the island. Locally this orchid is known only from a patch found by Mr. & Mrs. Thompson at Koornalla; a locality at Moe, and one at Yallourn having disappeared with clearing.

The orchid is usually found in damp heathy areas and at a first glance may be taken to be a white form of Pink Fingers (*Caladenia carnea*). However, the flower parts in the latter are bluntish and in the former acute. The labellum is distinctive in *C. aurantiaca*, being unmarked except for the tip which is deep orange in colour, whereas *C. carnea* invariably has its labellum barred with dark red.

It may be that the Orange-tip *Caladenia* is more widespread in our area than our discoveries so far have shown. A special place to look for them would be on the edge of heathy swamps such as the Anderson's Track area, or the gullies leading off the Walhalla Road past the Moondarra turn-off.

----- Ern Homann -----



From 'Geology of
the Buchan Area,
East Gippsland'
by Drs. Teichert
and Talent (1958)

Latrobe Valley Eucalypts: by Mr. Bob Auchterlonie:
(Part Two of Three Articles)

Following last month's Key, these additional notes provide a few more details of each species, particularly where these have a local bearing. Full descriptions would take up far too much space here, and in any case, these are readily obtainable elsewhere; nor would it be possible to give the full range of each species, but a few representative localities where each may be found are mentioned.

Just as animals, human or otherwise, form their own special friendships, so do Eucalyptus species appear to form associations one with another. This is often remarked upon, but the basic reason for it is probably that where two or more species associate, the local conditions are equally suited to each. Whatever it may be, we will often find Mountain Grey Gum growing in company with Manna Gum; Red and Yellow Box often share the same locality, while Candlebark and Snow Gum are inseparable friends, a specimen of each of which may be seen growing just across the road from the entrance to the Hazelwood Arboretum. Up till about ten years ago, the Driffield Road just out of Morwell was lined with tall showy Candlebarks one hundred feet high, accompanied as usual by Snow Gums of lesser stature. Then, without warning, every tree was deliberately felled and removed, presumably to facilitate the take-off and landing of 'planes, which were using the adjoining paddock as an airfield. Thus in a few hours of thoughtless and wanton destruction, these fine old trees met their end.

This is only part of a pattern all too frequently seen in recent times along our roadsides and elsewhere. "Slaughter, slaughter everywhere, Nor any stop to think ! " The field is no longer used as a landing ground, but no attempt was made to re-plant the roadside.

Probably the species with the widest circle of friends is Messmate, which particularly favours the company of Peppermint, but it is also found mingling with Mountain Grey Gum, the Stringybarks, Brown and Yellow, Yertchuk, and others to a lesser extent.

Some species, on the other hand, tend to keep to themselves, and seldom or to a very limited extent mix with other kinds, examples being Mountain Ash and Red Gum.

The meanings of the specific names are shown in brackets except where these are obviously commemorative.

E. bicostata. (two ribbed, referring to the buds) Victorian Blue Gum. Is easily recognizable by its larger, warted buds with powder-blue dusting. Juvenile leaves are also conspicuously powder-blue, borne on square-section shoots. The true Blue Gum, E. globulus, is similar in all respects except that the buds are borne singly in the leaf axils, instead of in threes, and are somewhat larger. It is a Tasmanian species, and is said to occur also in Southern Gippsland. It would be worth while members keeping a lookout for this single-fruited form. Victorian Blue Gum occurs plentifully in the heavy grey soils of the Tarwin River catchment area, the South Gippsland hills, and less frequently on the northern foothills of the Strzeleckie Ranges.

E. viminalis. (having long flexible shoots). Manna Gum.

The favourite diet of the Koala, this tree is scattered over our entire area, although it shows considerable variation in form. On the chocolate volcanic soils it is a clean-barked tree growing up to 200', but at low altitudes on poor soils it assumes a more stunted form, with rough, almost stringy bark. Foliage is light and slender. Buds always in threes, and are present for 12 months or more before opening.

E. rubida. (becoming red). Candlebark. The new bark is dazzling white, later developing most attractive patterns of reddish or plum-coloured patches prior to shedding. The inflorescence is an exact replica of Manna Gum. It is not very plentiful, but may be seen along the Midland Highway between Morwell and Yinnar, and the Driffield - Herne's Oak road.

E. pauciflora. (few flowered). Snow Gum or White Sallee. Is one the easiest gums to identify. The lateral veins run almost the full length of the leaf, almost parallel with the midrib, instead of diverging outwards as in all other species. A low tree, with one or several crooked trunks. Its specific name is rather inappropriate, as in this district it flowers quite profusely. Capsules fairly large, with a conspicuous rim. Look for it along the Midland Highway, opposite the Hazelwood Pondage.

E. cypillocarpa. (goblet-shaped fruit). Mountain Grey Gum. A thick-barked, heavy-foliaged tree. Buds are crudely finished, and the 7-flowered umbel is not always symmetrical. Prefers the rich soils and high rainfall area, where it may reach an enormous size, and heights over 200'. From one tree at Narracan brought down by the 1939 fires, nine hundred and forty seven full size fence posts were split. May be found at Thorpdale, Narracan, Darlimurla and throughout the hills.

E. kitsoniana. Gippsland Mallee or Bog Gum. A low-growing tree with the 'mallee' habit of sending up multiple stems from a common swollen rootstock. Confined to the coastal plains in poorly drained soils of low fertility.

E. regnans. (reigning) Mountain Ash. The undisputed monarch and largest tree of the whole genus, reaching heights of over 300'. For the first 20 or 30 ft, the bark is persistent, soft and felt-like, thence upward it is smooth and of greenish colour. This species must have rainfall of 40" or over, and favours altitudes between 1000' and 3000'. Its timber is clean-grained, and suitable for a multitude of purposes, from milling, furniture and flooring, to pulpwood, but is not durable when in contact with the ground. A feature of the log is that the sapwood merges gradually into the heartwood, without the distinct line of demarcation noticeable in most timbers. Mountain Ash forests covered large tracts of Central and Southern Gippsland hill country up to the time of white settlement, the Thorpdale South area being noted for the size and density of its trees. It is lamentable that no effort was made by the authorities this tree - one of which was calculated by Mr. G. Cornthwaite, a surveyor, to be 370' high, and which would make it the world's tallest tree - with an area surrounding it, but apparently it occurred to no one to do so. However, it may not have been possible to have protected it from the all-consuming bush fires which have swept the area subsequently. The tree was duly felled by paling-splitters, and stretched out on the ground measured 375 feet. Some indica-

tion of the size of these trees is given by an old photo showing a stack of 10,000 6ft. palings all split from one tree. Commencing 90 years ago, the transformation of this forest to farms is now virtually complete, and, for what consolation it may be, its place has been taken by some of the most highly productive pastures and potato fields in Australia. Bulga and Tarra Valley Parks are suggested as the best places to view Mountain Ash today.

E. tereticornis. (with cylindrical horn) Forest Red Gum.

The common name refers to the colour of the timber, not the flowers. As with the Blue Gums, so with the Red Gums, we have two closely related species, this one and the River Red Gum, E. camaldulensis, differing only in the shape of the cap or operculum. In the former it is quite long, projecting outwards like a horn, in the latter it is short and pointed. Forest Red Gum is the one occurring in our area, where it may be found on the open grassy plains from Traralgon eastwards. Rugged, gnarled and twisted, they make a favourite artists' subject. There are several specimens at the bottom of the Hazelwood Arboretum, planted by the previous owner of the land. Forest Red Gum furnishes a good example of the double operculum, more noticeable on some species than others. The outer one, thin and papery, represents the calyx or sepals, fused together, and is shed first, followed by the main or inner one, representing the corolla or petals likewise fused together, which is pushed off by the developing antlers at flowering time. In some species the two caps remain closely attached, and are shed as one. River Red Gum is found throughout Australia, usually along the rivers and watercourses of the inland. Our nearest examples occur in the Dandenong - Hallam area.

E. ovata. (egg-shaped, referring to the juvenile leaves). Swamp Gum. Makes a geometrically precise 7 - flowered umbel, with slender stalks and footstalk. Capsule and cap are triangular in section and of like dimensions. Leaves often have wavy or undulating margins. Swamp Gum is found throughout our area, usually near streams or in low-lying places, but occasionally extending up the hillsides.

(To be concluded in the next issue of the Newsletter).

----- Bob Auchterlonie -----

Feeding the Birds by Mrs. B. Thompson:

Since the bush near our place is being bulldozed, we have tried to feed the birds to encourage them to stay in the area. Our first difficulty was to feed the smaller birds as the Currawongs and magpies all ate the food quickly. So we built a second bird table nearer the house, then we put a wire covering over the top and down two opposite sides. However, the bigger birds still got in although they could not stand up under the wire. So now we have put bars of No. 8 wire, apart 4" apart, on the remaining two sides. This has solved the problem and the bigger birds must now eat at their own table.

During the winter the blue wrens, brown thornbills, thrushes and a white-eared honeyeater were always at the table. Sometimes we were vis-

ited by yellow-winged honeyeaters. A white-throated tree-creeper had a few feeds of cheese when the weather was really bad. The robins and the eastern spinebills scorned our tables. We feed the birds fat, cheese, bread in sugar and water, and the honeyeaters have honey and water. We had trouble with the bees eating the honey and water but after many experiments we now have plastic containers with lids on and holes in the sides. The holes are big enough for the birds' beaks but are too small for the bees.

We are hoping that some of these birds will nest nearby. We had a blue wren nest in the garden last year and the thornbills nested in the geraniums. Two white-faced herons are showing interest in the trees near the sheds. Our pet white-eared honeyeater has brought a mate home and they both drink from the containers, so we hope this means they have decided to nest in our lightwood tree. Since the weather has improved the birds have not visited the table so often. However, they are still around the garden.

We have noticed the honeyeaters are much more active on the fruit trees this year. Is this because the woodmen felled a big tree in the bush and there are not as many bees? Or is it because the weather here has been cold with fine misty rain and very few sunny days?

The honeyeaters love the lupin trees and have been feeding there in large numbers. We have seen white-eared, yellow-faced, yellow-winged, crescent and spinebill honeyeaters in these trees at the same time.

----- Bon Thompson -----

Greenhoods in the Beechworth Area: by Mrs. Frances Gladstone.

From seeds scattered and from multiplying root-tubers, on undisturbed native bushlands are clusters of random treasures - the orchid family.

Let us look at a few samples of the green-hood (*Pterostylis*) variety. Later on, perhaps we can look at *Caladenias* and *Diuris* and other rare wealth of the bush. For, at almost any time of the year, if we can come into native bush country, some orchid will be blooming, for those observant of Nature's ways and camouflage.

In the north-east Victorian foothills of the Dividing Ranges many orchids make their haunts and flower from year to year in their remote fastnesses. Joy is for those appreciative bush-lovers who come upon a cluster of poised exquisite orchids, seemingly to hold the very essence of the remote haunts in their elusive, austere beauty.

Among leafy clusters of crisp green leaves the curved nodding greenhoods (*Pterostylis nutans*) rise in little colonies. Quite often, nearby in the shelter of fringe myrtle thickets (*Calythrix tetragona*) are Dwarf greenhood (*p. nana*), tinier and more dainty than *P. nutans*, with taller upright stem clasped by stem-bracts, with upheld pale-green hood, a pointed

tip, and embraced by the points of the lower lip quite long and finely tipped. In the centre of the lower lip of the hood is a small inflexed tooth, above which the blunt tip of the oblong labellum shows its central soft brown line and tiny hairs. This diminutive species is in flower from July to October and is a very dainty species.

Another greenhood sought for each Spring and exulted over is the Bear-eded greenhood (*Pterostylis barbata*). It is often found singly, but most times in close proximity to several other leafy base rosettes, even if only one two flower in the colony. The stem bracts merge with the leafy base and a robust stem of about eight inches high rises gracefully, to hold up a quaint veined and reticulated hood with an inflated lower half, rich green veinings and soft lacy-green give a gauze-like appearance; there is a contrast of the yellow-barred labellum ending in a red-brown knob extended out of the hood. This distinguished greenhood is becoming rare unfortunately, as its very uniqueness makes it a rare prize to those who treasure bush loveliness; and to those who pick it thoughtlessly just to show everyone and hazard its survival.

Most bushlovers know *Pterostylis longifolia*, the Tall greenhood, with its robust strong stem up to twenty inches, and stem leaves large towards the centre and no basal rosette of leaves, and up to eight, in two-tone greens carried almost horizontally, and an incurved hood shape with lower lip reflexed and pointing downward. The labellum is irritable, and if it is flicked, it will spring up, to come back to position in about half an hour. This is to capture, for that space of time, an insect so that the pollen will be well scattered as the insect blunders about - later, when released it is still covered with pollen, and visiting another blossom, scatters it within onto the viscid disc on the column. How cunningly the trap of Nature ensures pollination of these little green elfin-like flowers!

In Summer, on rocky ledges and in clefts of rock, among moss and drying foliage of late Spring, quaint little rust-coloured orchids bloom. *Pterostylis rufa* is four to six inches high and its circlet of leaves at the ground level withers to a fawn circle of identifying colour, and from which the stem rises to hold up to three or five red-brown, striped hoods. The hood tapers to a long point and the lower lip reflexes and points downward, the margins produce long fine points also. The labellum is sensitive and hinged with bristle-like red-brown hairs, and the whole effect is very elfin.

Another quite similar rusty hood, in cliff top clefts and on rocky hill slopes of native rock-garden crevices, is *Pterostylis squamata*. It is a taller and more robust type up to nine inches high, and also has a withered rosette at base, when in flower. The 'squamata' refers to the 'scaly' stem-bracts, often up to eight embracing the stem and flower buds. Flowers are dim green with red and tan markings and the hood has a fine point, with the lower part reflexed and pointing downward but not tapering to a long fine point but curved in two points a little forward. The tongue is quite thick and sensitive as it springs up when touched; it too has bristles of red-brown, making a quaint blossom called "dwarfs" by children very often. Here is a little verse written about it:

Pterostylis squamata in native setting,
Rock-shallow soils, shrivelled and dry
Tawny grasses, just four inches high.
Brown crinkled fern fronds, tan mosses conceal
A rust-tinted orchid, shaded not to reveal
The exquisite crisp grace of the miniature bloom,
Pinpoint of perfection from the Universe loom !

----- F. Gladstone -----

The Rose Robins of Boola Boola: by Frank E. Jones.

I do not intend, by the title of this article, to infer that this locality is particularly noted for Rose Robins, but merely to indicate the area in which these observations were made.

There are five Red-breasted Robins in Australia, and of these the Rose Robin (*Petroica rosea*) and the Pink Robin (*Petroica rodinogaster*) are the two least frequently seen. In Gippsland the common ones are the Scarlet Robin (*Petroica multicolor*) and the Flame Robin (*Petroica phoenicea*), while the Red-capped Robin (*Petroica goodenovii*) is found mainly in the inland areas, including Northern Victoria. I have only heard of two reports of the Red-capped having been seen in Gippsland.

The Rose and the Pink are very similar in appearance. The only visible distinction between them in the field is that the head of the adult male Pink Robin is much darker than that of the Rose Robin, but with the females and immature birds it is almost impossible to be sure on field observation alone. The call of the Pink Robin is a simple "Tick, tick", and the Rose Robin also says "Tick, tick", but by way of variation has another call, (best heard in a rocky gorge where the echoing effect takes away harshness of the notes) a little whistle that sounds like: "we-we-the-wreetle". Both species inhabit the same kind of country, so it is really necessary to live with the birds for a while to get to know them. I have only seen the Rose Robin in the timbered, hill country, although they are reputed to move to the more open country in the Winter.

The first pair of Rose Robins I have been able to study closely came early in October and joined in with other birds which were feeding on termites which I provide for them. The male of this pair had only a faint flush of pink on the breast, instead of the brilliant magenta-pink of the fully adult male, and yet these could be a breeding pair for in other Red Robins breeding sometimes begins before the male has any red plumage at all. These birds are proving to be more trustful than other robins. They are completely indifferent to strange objects and when approached move only to keep out of the way. On Oct. 23rd. the hen bird was noticed taking rabbit fur (also provided for the benefit of birds) high into a Blackwood, where the beautiful nest was found, complete except for the final lining of fur and plant down from the tree-ferns. It is built on a horizontal branch and is composed of very fine strands of bark, while the outer surface of the nest is neatly bound with moss and lichen.

On several occasions a pair of Golden Bronze Cuckoos were seen near the nest as if keeping an eye on it with a view to parasitizing the nest when the Robin laid her eggs. The shrill, excited calls of the Cuckoos at such times would attract the rightful owners, who, with a display of furious indignation, would attack the intruders, causing them to leave. Whether the Cuckoos were actually driven away or whether their departure was of the nature of a strategic retreat, the Robins, after following them for some distance, would return obviously well satisfied that they had routed the invaders. Whatever plans the Cuckoos may have had, the Robin has laid two eggs and is busy trying to hatch them in these contrary Spring conditions.

Meanwhile, another pair of Rose Robins, with two young in the nest, have been found. This time the male has the glorious adult plumage, and they are proving delightful subjects for photography. Their nesting site is again in the Blackwood, a fitting habitat, with Tree-ferns and water falls, adjacent to partly cleared farmlands which were deserted by the settlers long ago. The male Robin at this place is banded, and must be an old friend from the time when I did one day's bird-banding in the vicinity last February. Whether, since then this bird has been away to some distant Winter habitat, or whether the close proximity of the clearings make this a suitable all-the-year-round residence for Rose Robins remains to be seen.

----- Frank E. Jones -----

Botanical Excursion to Gormadale and Rosedale Areas: described
by Mrs. L. Padfield.

The leader of the Excursion on Sunday the 16th. October was Mr. Graham Marshall, whose knowledge of the areas and the flora to be seen ensured another enjoyable and profitable field day.

Among the plants and blooms seen were the Golden Grevillea and, in full flower, the Tall Rice-flower (*Pimelia ligustana*). In the vicinity of the Gormandale rubbish tip were several species of Orchids - Wax Lips (*Glossodia major*), Mayfly Orchids (*Acianthus caudatus*), the Flying Duck Orchid (*Caleana major*), the latter not yet in flower. The Leek Orchid was seen later and the species identified as the Broad-lipped Leek Orchid (*Prasophyllum patens*?). There were also stems of the Sun Orchid (*Thelymitra grandiflora*) and the Wallflower Orchid (*Diuris longifolia*). The Wedge Pea, which was a mass of yellow flowers, presented a lovely sight, and of interest was an erect form of the Handsome Flat Pea. The Running Postman, Wedding Bush, Love Creeper, Appleberry and Native Fuschia (*Correa reflexa*) were generally plentiful.

The Wildflower Reserve on the road to Merriman's Creek, although a comparatively tiny pocket of land, but fenced and protected from the native and other animal life, was a mass of blooms on usually well grown bushes, was a living, colourful compliment to the Rosedale Shire which created it.

The plants seen during this pleasant short day were typical of the sandy nature of the soil and other environmental conditions.

---- L. Padfield.

----- LATROBE VALLEY FIELD NATURALISTS' CLUB. -----

OFFICE BEARERS:

President: Mr. E. Homann.
Senior Vice-President: Mr. J. Peterson.
Vice-Presidents. Mr. G.T. Scanlan, Mr. F. Jones.
Treasurer: Mr. E. McElroy. Assistant: Mrs. F. Kinniburgh.
Excursion Secretary: Miss Nancy Rossiter. Assistant: Mrs. L. Padfield.
Publicity: Mr. R. Stevens. Editor: Mr. G.T. Scanlan.
Secretary: Mr. S. Belgraver, 179 Lloyd Street, Moe.

OBJECTS OF THE CLUB:

1. The study, enjoyment and conservation of nature;
2. The encouragement of an interest in the various aspects of natural history;
3. The holding of regular meetings and arranging for suitable speakers;
4. The organising of excursions or field days.

MEETINGS OF THE CLUB:

General meetings of the Club are held on the fourth Friday of each month at the Yallourn State School, commencing at 7.30 p.m. The subjects for talks at general meetings are published in the monthly Newsletter. Visitors are always welcome.

EXCURSIONS:

Excursions of the Club are in the nature of field days to places of botanical interest, or to study the fauna or geology of an area, with competent leaders.

SUBSCRIPTIONS:

The Club annual subscription is 10/- for a single person, 1/- for juniors, and 15/- for a family. The subscription covers the monthly Newsletter.

NEWSLETTER: Contributions are invited from members for the Letter which is published monthly. They should be addressed to: Mr. G.T. Scanlan, L.V. C. Hospital, Yallourn.

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Issue No. 37

December 1966



PROTECT

AND

ENJOY



LATROBE VALLEY FIELD NATURALISTS' CLUB

MONTHLY NEWSLETTER

The Bad Day Excursion - January 25th, 25th and 30th

The long weekend excursion to the Bad Day is still to be conducted and, should the response by members, the Club is now committed to pay for the 3rd night of the Saturday and Sunday nights.

The estimated cost for each member's accommodation will be \$15.00 for the two nights. This is only a guide figure by some members of the Mountaineering Club of the Victorian Field Naturalists Club which is to make up the necessary surplus.

The things you will need to take are as follows:

- Pillow slip, blankets, sheets (or sleeping bag).
- Tec towel, towel for personal use.
- Food for the time to be spent on the Mount.

Members requiring transport are requested to contact Mrs. Lewis Bullfield at 42 Strzelecki Road, Yallourn or telephone 52581 as soon as possible.

Mrs. Bullfield has advised that there are still a few vacancies in the lodge.

Travel:

All cars should proceed independently to Mount Etna and then continue up the mountain. It is suggested that you arrive on early start on the Saturday morning, particularly if the weather is poor, as it is a steep, hard drive for the last three miles.

If you have not yet decided to attend the excursion, please give it serious consideration - the high plains flora should now be at its best!

General Meeting at Yallourn State School, Friday, 7th January at 7.30 pm.

This is to take the form of a 'film night', and members can be assured of an entertaining and interesting night of nature films - made possible by the good co-operation of several people with the Secretary.

December Issue of the N.V.F.N.C. Newsletter

Because of a number of happenings outside the control of the Editor and the Secretary, the December issue of the Newsletter has been unduly delayed. Although the proofs were prepared well before the usual time for duplication.

It is not intended to revise the happenings, but it appears that the Club should consider the purchase of a suitable duplicator if the Newsletter is to be continued. The Executive Committee will almost certainly recommend to members that this be done, as the duplicator could be used to advantage for purposes other than the printing of the Newsletter.

Next Meeting of the Association

The next meeting of the Executive Committee will be held at the home of Miss Nancy Baskin, Railway Avenue, Yallourn on 2nd February, 1967 at 7.30 pm.

December
1966.

LATROBE VALLEY FIELD NATURALISTS CLUB.
MONTHLY NEWSLETTER.

Issue No.
37.

Editor: G.T. Scanlan, L.V.C. Hospital, Yallourn.

Dear Fellow Field Naturalists,

The Excursion Secretary, Mrs. Lorna Padfield, has advised the last of the organized activities of the Club for 1966 as follows:

December 18th. Sunday afternoon. Excursion to Foster's Gully, (Morwell National Park). This is for the principal purpose of viewing the Tree Orchid, but there is also the desire to inspect a valuable newly reserved area. The meeting place is the Yallourn Hotel and the time 2 p.m. Members travelling from Traralgon may prefer to go straight to the Park.

Leader of the excursion is to be Mr. Jim Peterson.

January 1967: Although many members have expressed a wish for a long week end outing at Mount Baw Baw in January, Mrs. Padfield so far has had few firm bookings. It is necessary to know as soon as possible those who will be attending on the long week end of 28th., 29th., and 30th. January, in order that the Ski Lodge may be booked or the tentative booking cancelled. There is accommodation for 28 people, and the total cost is \$80.

Please contact Mrs. Padfield at 42 Strzeleckie Road, Yallourn, telephone 52 581. Individual cost is to be \$3.50 and, apart from food supplies which members must provide, the following is needed:

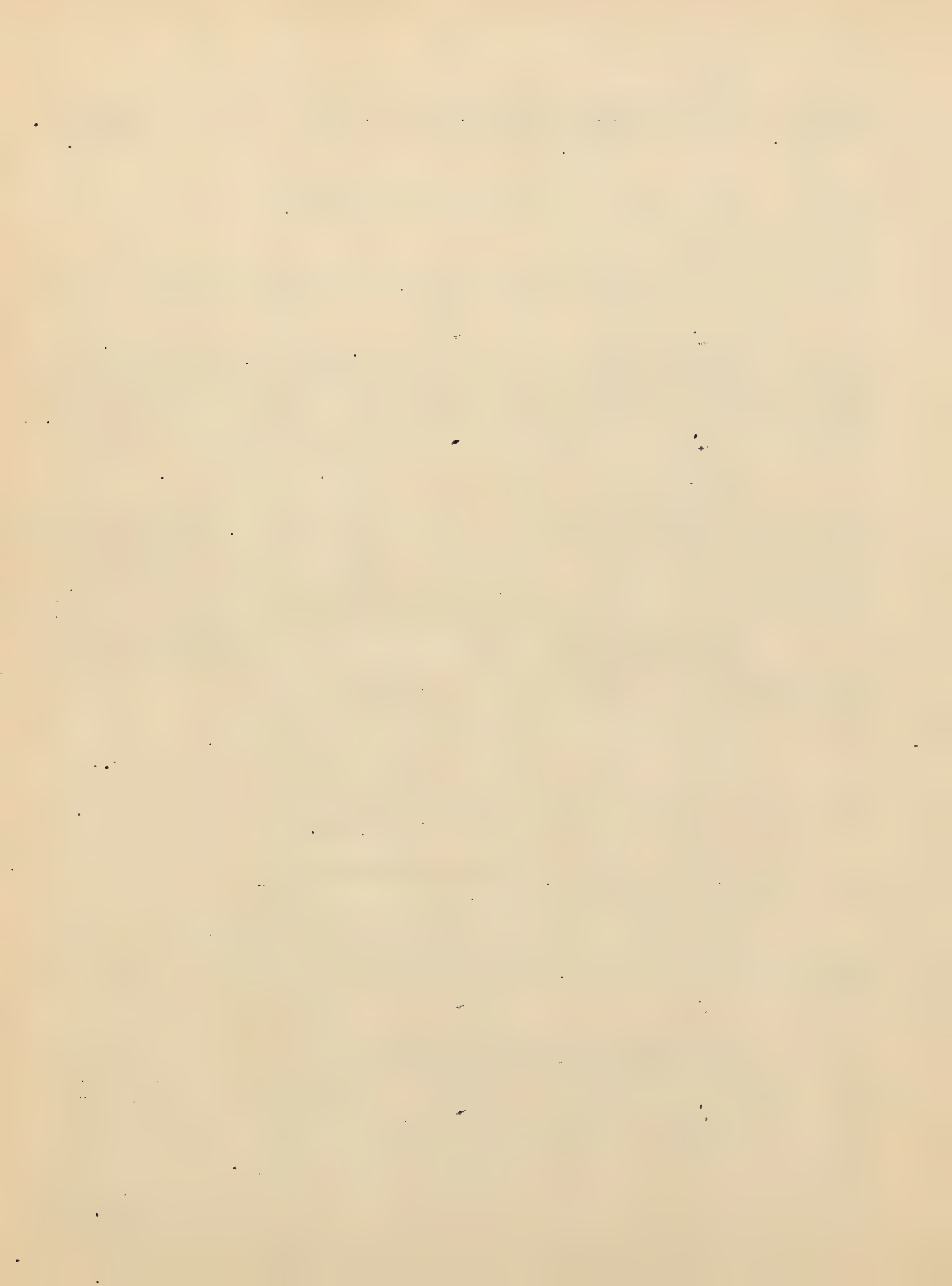
Pillow Cases (Sounds luxurious to the Editor).
Sheets, sleeping bag or blankets, towel, tea towel etc..

The object of this week end is to study the botany of the Baw Baw Plateau, at a most suitable time of the year.

Report of the end of year Executive Meeting held at the home of Mrs. Padfield on the 2nd. December:

Arboretum: Several members reported having spent some time at the Hazelwood Arboretum in weeding among the trees which are still making their way. There is still a great deal to do, and it will be a fine gesture on the part of any of the members to give some time to this essential task.

Change of Name of this Newsletter: Members will be asked at the next general meeting to change the name of the Newsletter to 'The Latrobe Valley Naturalist', which seems now to be more appropriate to its purpose and content than that which it now bears. The Editor takes this opportunity of expressing sincere thanks to those members, and some others, who have made it the success which it is felt it has become. They are, of course, the contributors, and the Club is fortunate in the quality of its membership as evidenced by the standard of its official publication. Apart from the preparation of the Newsletter, there has been the work involved in getting it ready for distribution and the actual circulation among members. This has been a co-operative effort of no little gratifying results.



January 1967 General Meeting:

It is hoped to hold a general meeting in January for those members who are not going away from their homes. This is expected to take the form of an appropriate cine picture night, and the Secretary, Mr. Belgraver will choose films to make what is sure to be an interesting and enjoyable evening.

Next Meeting of the Executive:

The next meeting of the Club Executive is to be held at the home of Miss Rossiter, at Railway Avenue, Yallourn, on Friday 3rd. February 1967.

W-Tree Grevilleas: by Mr. Ern Homann.

Travelling north from W-Tree Creek (in the Buchan area) a farmhouse is passed at the top of the hill and on the right hand side of the road. The garden round it is extensive, and seems to consist mainly of Grevillea species.

This is the home of Mr. Hodge, who was responsible for the Poorinda strain of hybrid Grevillea which do so well in home gardens, and in addition provide a tremendous attraction for honeyeaters.

Miss Galbraith tells me that Mr. Hodge had growing in his garden originally a local species, *G. victoriae* and two species from other districts, *G. juniperina* and *G. lavandulacea*. Honeyeaters and bees cross-fertilized those three species and Mr. Hodge noticed that some of the resulting seedlings were different from the three preceding species, were of good type, and worthy of cultivation. Nurserymen agreed and the stock of plants was built up by means of cuttings.

Two varieties which grow very well in the garden are *G. Poorinda* Constance, and *G. Poorinda* Queen.

----- Ern Homann -----

Contributions for the Newsletter:

The Editor will appreciate contributions for the January and subsequent issues. These may be sent, as usual to him care of the Latrobe Valley Community Hospital. Provided the articles, short or long, deal with some aspect of natural history of general interest to other members they will be acceptable and appreciated.

(G.T.S.)

Excursion to Little Snake Island on 29th. October. 1966.
by B. Kemp:.

Our excursion day to Little Snake Island at the entrance to Corner Inlet began fairly early as we were to meet at Port Welshpool at 10.30 a.m., most participants taking the longer route through Traralgon and Yarram in preference to the more picturesque but winding Midland Highway route. Again we were favoured with a fine day, dullish for the journey down and back, but sunny with a cool wind at our destination. Here we met our leaders, Messrs. N. Rossiter and R. Austin.

While we waited on the pier for our transport to the Island, we looked eagerly across the half mile of water to the low flat island with its trees set well back from the near shore. Beyond, the peaks of the heel of Wilson's Promontory stood out, partly veiled in a bank of misty pale grey cloud which gave it a rather mysterious Bali Hi appearance. Crayfish boats lined the pier carrying on their decks what, at a distance, looked like outsize oranges, but which turned out to be cray pot markers.

One of our transports having engine trouble, it was replaced by a bigger boat with dinghy in tow, and we had the excitement of clambering down the side of the pier into the larger boat and then, just off the island, of transferring to the rocking dinghy in order to land within wading distance of the shore. In the process there were a few wet tails, old King Neptune turning out to be quite a bottom slapper and enjoying himself at our expense. However, it did not dampen our ardour but merely whetted our appetites.

After lunch on the beach we headed for the other side of the island, which is approximately 3 miles long and varying in width from about a mile at its western end to half a mile along to its eastern extremity.

First, we crossed dried mud flats scattered with dwarfed and twisted clumps of Mangrove about 1½ to 2 feet high and carpeted with the colourful succulent, Noon Flower, a species of Mesembryanthum, showing a few pinky-purple flowers, and the tiny golden buttons of the Cotula. Soon this gave way to a lush grassed area dotted with tussocks and very tall clumps of Mat-rush (known locally as 'Saggs'). Here in profusion were tiny white daisies, Honey Dews in pale pink flower, and minute wild violets. We also found two varieties of Veronica with similar small mauve cup-shaped flowers but different type leaves, a handsome Hare Orchid (*Caladenia menziesii*), Common Onion Orchid (*Microtis unifolia*), Nodding Greenhoods (*Pterostylis nutans*), Senecios with their multiple heads of bright yellow daisy flowers, finished Mayfly Orchids (*Acianthus caudatus*), and golden Tiger Orchids (*Diuris sulphurea*) with their two large nigger-brown spots. It was an area ideal for snakes but probably too early for them. Here we also came across a water hole with some cattle standing around it (probably the last of those brought down each winter from the mainland mountains), and further to the west we saw some kangaroos bounding away from the area. There are also small deer on the island, but we saw only footprints of them. All these discoveries were made on the way back - we had been in too much of a hurry to get to the bush section further south.

This we now entered, commencing with a dry section of low bracken (very hard on bare legs) dotted with Saw Banksia (*Banksia serrata*) both very old and seedling. Here we found Twining Glycine with its tiny blue flowers,

Running Postman (*Kennedia prostrata*), the large leaf Bush Pea (*Pultenea daphnoides*), a dwarf Guinea Flower (*Hibbertia*), Blue Bells, White Candles (*Stackhausia*), blue Love Creeper (*Comesperma volubile*), low bushy white Cranberry Heath and common tall Heath, blue *Dampiera stricta*, pink Centaury Flower - and many mosquitoes.

The bush thickened as we came closer to the south shore, with Eucalypts and Acacias (Spiney, Sweet-scented, Prickly Moses, Varnish). Here we came across areas of Grass Trees, young and old - there were two handsome specimens in full flower with white-flowered spike and one still in the green bud stage. The land must have been rising gradually, for little gullies appeared here and there, and suddenly we came out above the south shore looking across to Snake Island and Wilson's Promontory. It was a pretty sight, gazing down upon a broad expanse of golden sandy beach, and over the changing blue-green channel to Snake Island. The peaks of Wilson's Promontory were now quite uncovered by cloud, blown away by a stiff southerly breeze which we had not felt coming through the hot bush.

We paused to watch a pair of Striated Pardalotes fluttering along the edge of the cliff, no doubt looking for insects; and three Oyster Catchers could be seen out toward Snake Island, with some Black Swans further south. Other sea birds noted were Cormorants, Seagulls and Pacific Gulls, while the land birds included White Fronted Chats, Yellow-winged Honeyeaters in the Banksias, and a group of Red Wattle Birds and Grey Thrushes.

On the return journey, some of the party took the western shore route while others continued back through the bush, making further discoveries on the way. Trees included Coast Manna (*E. viminalis*), Messmate (*E. obliqua*), and White Mangrove. There were many Giant blue Waxlips (*Glossodia major*), budding yellow Twisted Sun Orchids (*Thelymitra flexuosa*), and Nodding Greenhoods, as well as the blue-mauve Dotted Sun Orchid (*T. ixiodes*), finished Slender Sun Orchid (*T. pauciflora*), pinky-white Orange-Tip Orchid (*Caladenia aurantiaca*), Bearded Greenhood (*P. barbata*) almost extinct in the area, and the pretty Dillwynia floribunda with its round clumps of yellow-orange pea-shaped flowers on heath-like stems, Trigger Plant, Spider Orchid (*C. tessellata*), Gnat Orchid (*A. exertus*), Pink Fingers (*C. carnea*), Tiger Orchids, Leek Orchid, finished Maroonhood Orchid (*P. pedunculata*), Red-beak or Undertaker Orchid (*Lyperanthus nigricans*), and the Blue Grass-Lily (*Caesia vitata*).

Altogether, it was amazing the variety of flora to be found on the island, which gave little evidence of this at first glance.

Returning to our pick-up point about 3.30 p.m. we found the tide well out, with myriads of tiny crabs scuttling about the shallows, and scrambling down into the sand at our approach. A mist was beginning to rise over Wilson's Promontory and spread across the sun, bringing a quiet dreamy atmosphere to the scene. Again there was trouble with our transport, one boat load being stranded with engine trouble. Another boat arrived to take the last of us off the island, and we went off waving mock derision to our stranded confreres and feeling rather smug - until 'yours truly' discovered that some Good Samaritan had put all her belongings aboard the other boat ... In due course all arrived safely back on the mainland.

Despite the comedy of errors, which included many scratches, mosquito bites and another wet tail for the writer at least, we had a very enjoyable and successful day and, on behalf of us all, Mrs. Lyndon thanked our leaders and organisers for their help and leadership.

----- B. Kemp -----

Latrobe Valley Eucalypts: Concluding Article by Mr. Bob Auchterlonie.

This month the rough-barked species are reviewed:

Eucalyptus cephalocarpa (heads of fruit). Silver-leaf Stringybark.

A small to medium size tree, confined to the poorer soils, its glaucous juvenile foliage is the chief source of the gum tips used for interior decoration. Individual trees sometimes display a reluctance to switch over from the juvenile to the adult stage, and fully grown trees with flowers and fruits may be found still clothed entirely with juvenile foliage. The adult leaves are narrow lanceolate, and are not glaucous. Abundant around Moe, while picturesque groves of it line the Prince's Highway north of Bunyip.

E. huberiana. Rough-barked Ribbon Gum, a rather unsuitable common name. Buds and fruit resemble Manna Gum, but are always in sevens. A small tree of infrequent occurrence, but may be seen at the Edward Hunter Reserve, the Walhalla Road, Moe, Driffield, and junction of the Prince's Highway with Fogarty's Road.

E. scabra. (rough). White Stringybark, is also not common here, but occurs on the sandy area on the Traralgon - Gormandale road. Buds and capsules are quite small, and up to fifteen in an umbel. Juvenile leaves covered with short bristles.

E. considaniana. Yertchuk, more often called Prickly Stringy. A small to medium size tree. Haunted Hills, Trig Point, Golden Gully Road, Darlimurla.

E. obliqua (slanting unequal-sided leaves). Messmate. Although many eucalypts have unequal-sided leaves, this character is possessed to a marked extent by Messmate, and it is not uncommon for two thirds of the leaf area to be on one side of the midrib, with one third on the other. Umbels may contain up to 12 buds, arranged at random, and yellow in colour. Occasional panicles are formed. E. obliqua was one of the first eucalypts to be described and named, from material collected in Van Diemen's Land almost two centuries ago. It is the most widespread species in our area, and occurs throughout, with the exception of the drier parts in the east. It is a favourite with campers, its soft fibrous bark providing kindling material even in the wetter weather.

E. baxteri. Brown Stringybark. A large tree with a superficial resemblance to the previous species, but differing materially in the fruits, which are quite broad and stalkless, and form tight globular clusters. Golden Gully and Mountain Hut Roads, Yinnar South and Darlimurla.

E. muelleriana. Yellow Stringybark. The inner bark is yellow. Is confined to small areas in the Latrobe Valley such as Explorer's Road and Whitelaw's Track, Yinnar South, but is much more plentiful in the eastern part of South Gippsland.

E. bridgesiana. But-But, also called Apple Box. Although this possesses a box-like bark, it does not form the panicles of bloom which distinguish the true boxes. Is fairly widespread, Hazelwood, Tyers, Driffield, Mirboo North.

E. polyanthemos (many-flowered) Red Box. Forms a broad crowned tree with long drooping branches, and very glaucous foliage, sometimes with an underlying plum colour. It has the broadest leaves of any of our eucalypts; the juvenile leaves may be broader than long, with a terminal notch instead of a point. Red Box is confined to the eastern portion of our area, where both rainfall and altitudes are lower than in the west.

E. melliodora (honey-scented). Yellow Box. The source of our best quality honey, this has the same range as the previous species. Young growth is glaucous, but this disappears as it matures. Just prior to opening, the buds take on an attractive waxy appearance, cream coloured with a red flush. They are borne in both regular umbels of seven, and leafy panicles.

E. bosistoana. Gippsland Box. A large tree with a much more limited range than the previous two. Yinnar South, Upper Flynn.

E. radiata. (ray-like). Peppermint. The specific name refers to the umbels, which may have up to 30 or more quite small buds radiating outwards in all directions. Older trees develop a weeping form of growth. Common throughout. Classification of the Peppermints presents problems, and has been marked over the years by shuffling and name-changing, and finality may not yet be reached.

E. dives. (rich). Broad-leaf or Blue Peppermint. Differs from the previous species in that the juvenile leaves are broad and glaucous, the fruits are slightly larger, and the tree smaller. It flowers most profusely, and is confined to the loose sandy soils,

E. sideroxylon. (iron wood). Red Ironbark. This tough tree chooses a tough environment, in the gravelly and stoney foothills north of Glengarry, Cowarr etc.. It yields the hardest and most durable of our timbers, pink to reddish in colour. The flowers vary from cream to rose-pink, are quite large, and borne in threes. Red Ironbark in flower seems to possess an irresistible attraction for Wattlet Birds, which assemble in large numbers to feed on its nectar, the while giving vent to all the wierd variations of their vocal repertoire.

E. sieberiana. Silvertop. The bark of saplings is bluish colour, followed by a stage with an attractive lacy pattern, and eventually the hard adult type. A young tree with the lacy bark on trunk, silver white branches, and deep red twigs, makes a handsome specimen. On account of its thick hard bark, and clean unbranched bole, Silvertop is one of our most fire-resistant eucalypts - fires which severely damage other species leaving it unharmed. McDonald's Track, Mountain Hut Road, Moe South. Fairly widespread.

Finally, a note on hybrids. From time to time trees are found intermediate in character between two species, and which may be presumed to be the result of cross-pollination. A few years ago, such a tree grew near the arracan township, where the prevailing species are Manna Gum, Mountain Grey Gum, and Swamp Gum. This tree had the buds and fruits typical of Mountain Grey Gum, with flattened peduncle, but they were all borne in threes, as in Manna Gum. The tree was eventually cut down to make way for an S.E.C. power line. Trees intermediate between Mountain Ash and Messmate are not uncommon.

Errata! In the November issue, *E. cypellocarpa* was misspelt, also the note on *E. regnans* became scrambled, and should have read "... the Thorpdale South area being noted for the size and density of its trees, one of which was calculated by Mr. G. Cornthwaite, a surveyor, to be 370 ft. high, which would make it the world's tallest tree. It is lamentable that no effort was made by the authorities of the day to retain this tree, with an area surrounding it, but apparently it occurred to no one to do so."

References: R.T. Patton. 'Know Your Own Trees.'
Department of Agriculture. 'The Honey Flora of
Victoria'.
W.F. Blakely. 'A Key to the Eucalypts'.

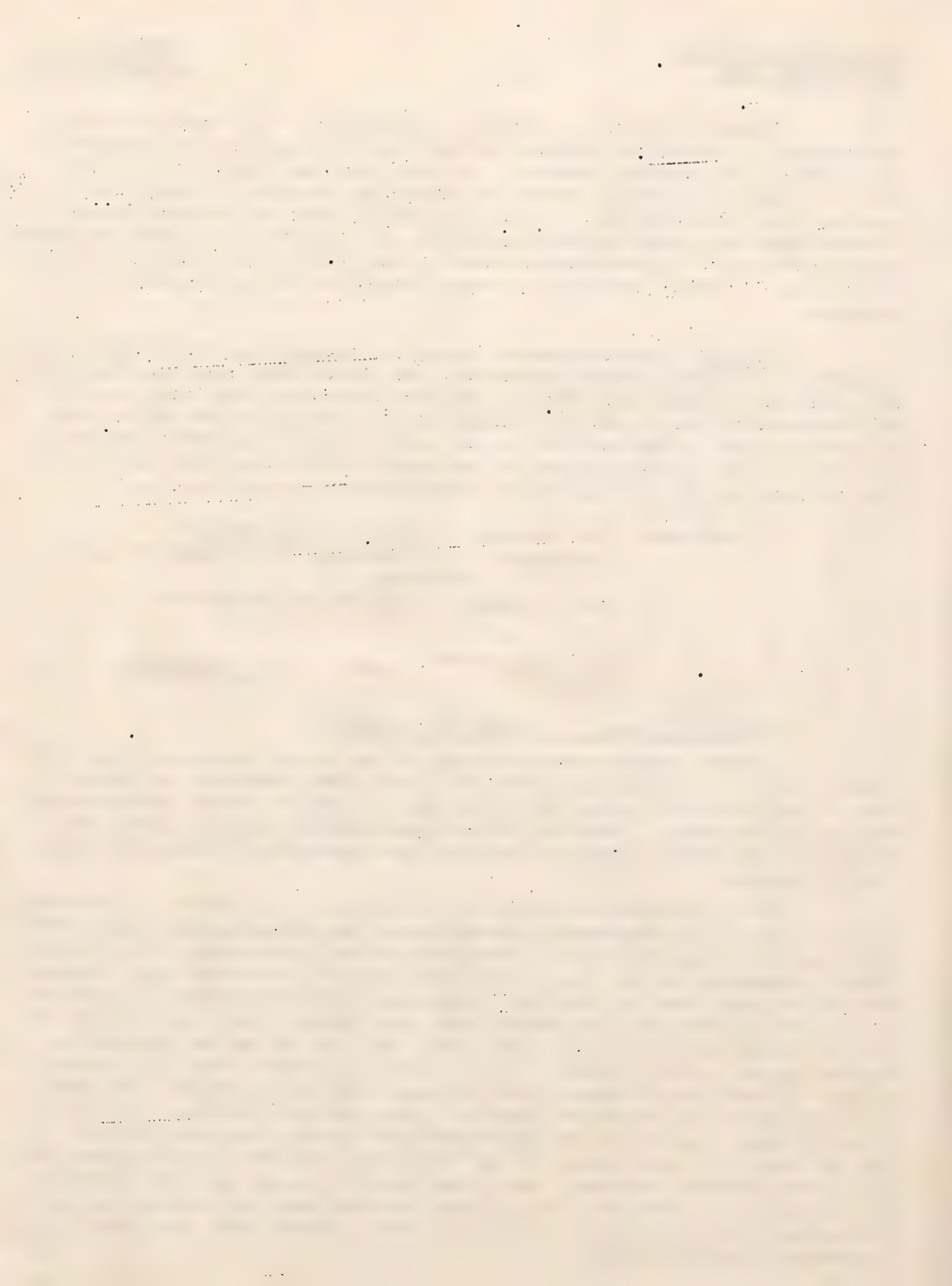
----- Bob Auchterlonie -----

The Holly Tree: A Story by M. Hague.

On the bracken covered slopes of the forest there grew many fine trees. There was a massive beech with long limbed branches, a strong oak, a pretty silver birch, and by the stream a willow, whose lower branches trailed in the water. When the birds began singing early in Spring the trees felt their sap rising and soon the buds appeared, holding new leaves tightly curled.

How proud the beech was of the delicate green dress ! She would talk proudly to her neighbours, now and again she condescended to look down on the little holly tree which looked rather drab and shabby in the sunshine. "What a strange tree that is, I feel sorry for it", she would say. Indeed the little tree tried to hide from these proud creatures, under the shadow of a thorn. After the long summer days came Autumn, when the beech shook out her auburn tresses. The other trees felt envious as the sun shone, burnishing her bronze foliage. As the leaves fluttered down like butterflies, the little holly tree felt a strange tingling sensation. She noticed how bright her leaves had become. The days grew colder, the leafless tress shivered, one could see the branches as though they were ghosts. It was now the holly tree looked really beautiful, and from the rich green foliage glowed crimson berries. How happy she felt in the grey of December! She smiled at the beech and other trees, for she knew they were sorry for having hurt her. They knew now that she was a wonder tree, the symbol of Christmas. THE HOLLY TREE !

----- M. Hague -----



An Enquiry: by Mrs. Ellen Lyndon.

Just how widespread in our districts is the Bushy Clubmoss, *Lycopodium*? I would be interested in any reports. We know it near Walkerville, and in several places on Wilson's Promontory. Now it has been pointed out to me between Mirboo North and Darlimurla, not far from the Thorpdale roadside.

Common names can be misleading. I have been taken to task for referring to *Gleichenia microphylla* as the Coral Fern, when it has always been known in South Gippsland and further afield as Umbrella Fern. True Coral Fern, I was told is quite different. I asked for a sample piece of this plant and have duly received a nice frond of the Bushy Clubmoss, a 'much more Coral-like plant'. Can the Clubmoss be hiding elsewhere under an assumed name?

And, in view of the proposed forthcoming excursion to the Baw Baw Plateau in January, the following verse by Mrs. Lyndon is appropriate to this issue:

HIGH Plains In January.

On Bennison Plain the wind blows free
And daisies dapple the sunlit lea
And a robin nests in a burnt-out tree ...

We climbed to the Plains from our Wellington camp
By Tamboritha's tortuous ramp;
Past the Crinoline's flounces laced in green
and the Lookout, framing that lovely scene
over hill and valley and Gable End.
(And a chromium mine in the river's bend).

The road on the plateau is gravelled and wide
and the trees marched in from every side
mossed with the greenery of last year's burn
just when the summer was on the turn,
and the small bright flowers of the high grassland
spread a carpet of color on every hand.

In a bog on the slope by Surveyor's Creek
there was beauty, remembered for many a week.
Blue shimmer of Sun-orchids, paler beneath,
rosy-pink trigger plants, waxy white heath.
Eyebright and willowherb; aprons of faery
and a small Alpine sundew, to trap the unwary.

And Ascroe, a fungus quite rare
popped up to the light from its mossy lair,
its red arms uncured to attract the flies
that flocked to devour this malodorous prize.
Devious and strange are the natural laws
that make use of the insects to scatter the spores.

On Doolan's Plain a bluebell grew
of a rich and Royal Purple hue,
its crinkled foliage stirred by the breeze
that rippled up from the tops of the trees
far below in Moroka Glen ...
Will it be there still, when we come again ?

----- Ellen Lyndon -----

A Year of Wildflowers: by Miss Jean Galbraith:

Many of us last visited the wildflower sanctuary near Traralgon South School at the working bee in May. We were all pleased to find so many species flowering (about 12 species) in late autumn. Correa reflexa, the Red Correa, was already spectacular with big cardinal red bells.

However, those who went there in Spring saw an even more brilliant flowering of Correa, as well as purple Hardenbergia, scarlet Running Postman (Kennedya prostrata), mauve Tetralochea pilosa, white Silky Teatree and Rice Flower, cream Wedding Bush (Ricinocarpos), and a great variety of orchids and other flowers.

All this indicates the value of the sanctuary, but it was not the end of flowering. I spent some time there on the last day of November, and saw a colourful scattering of flowers which will continue to flower well into the summer. The Correa bushes which were flowering in autumn, winter and spring, have few bells remaining, but those in the shady south-east corner are flowering as brightly as the others did in May, while almost throughout the sanctuary Tufted Blue-lily lifts wiry branched stems, one and two feet high, holding its brilliant purple blue stars above tufts of soft blue-green sword-shaped leaves. Karralla (Gompholobium huegelii (?)) is equally abundant, just coming to full bloom, with golden pea flowers an inch across, and oval indigo buds.

This species is about 2 ft. high at most, instead of 3 or 4 ft. as in G. latifolium, and the golden flowers are as beautiful as those of G. latifolium admired by those taking part in the October excursion to Gorman-dale, but they are on long stalks at the end of the branchlets, instead of growing up the stem from the leaf bases as in the taller species.

Prickly Teatree is flowering instead of Silky Teatree, Tall Parrot Pea instead of Golden Bush-pea; Duck-orchids and Onion Orchids instead of Waxlip and Diuris and Spider-Orchids, while Sickie Greenhoods, the most delicately distinguished of their family were almost over. So were the Trigger-plants that had been so gay when we were there in mid-spring, but many had a few pink flowers still with triggers ready to spring, near the tops of their tall stems. Some were unusually tall - one 49 inches! Yellow Marsh-flowers with fringed inch-wide bright yellow flowers had begun to bloom in the swampy corner.

There were many other gay yellow flowers: Groundsel, Hop Goodenia, Rush-lily, and Mat-rush, while buds on two species of Carsinia and on the Peppermints promised flowers in December and January; perhaps till late in February. After the first good Autumn rain, probably in March, Correa and Bird-orchids will be flowering again, and continue to flower until May, completing a year where, in one small sanctuary, there is no month without flowers. Wasn't it worth saving !

----- Jean Galbraith -----

Christmas Wish For All Our Members from all Our Members:

Fair be your days; full of beauty for treasuring,
Sweet be the joys your heart ponders alone,
Sorrow give place to a peace beyond measuring,
Go you with song to the future unknown.

Never a day but has beauty for taking,
Never a morning, but light breaks anew;
All the world over are friends for the making,
Courage and laughter go meet them with you.

Then, through the clouds that the future are covering,
(Blessing and burden within them enfurled)
Ye, like the shepherds, may find angels hovering,
Christmas fulfilled, and the Joy of the World.

(J. Galbraith)

Two Wild Cherries: by Miss J. Galbraith.

In November and December the Cherry Ballart (*Exocarpus cupressiformis*) and the badly named Pale-fruit Ballart (*E. stricta*) are dotted with fruits.

There are several trees of the Cherry Ballart in the wildflower sanctuary at Traralgon South, but only one of the bushy Pale-fruit Ballart which has rather flattened branchlets with small "shoulders" where the deciduous leaf-scales have fallen, instead of the rounded branchlets of Cherry Ballart. Also the Pale-fruit species is a tall shrub, not a tree. It is found toward the east end of the south fence of the sanctuary. The fruits of all our Ballarts are small, hard, oval and dark green, but the fruit stalks are juicy and fleshy, suggesting little oblong cherries ($\frac{1}{4}$ " to $\frac{1}{2}$ " long).

Those of Cherry Ballart are scarlet. They are dotting the tasselled branches now (December) and are sweet and pleasant to eat. The other species has brownish red fleshy stalks. They are not ripe yet - and I haven't tasted them.

(J.G.)



*Latrobe Valley
Naturalist*

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LOWAN Sanctuary Little Desert	A. Chambers	105 Sep 72
McDonalds Track Oct 64	R. Auchterlonie	13 Nov 64
Maranoa Gardens	L. Padfield	96 Dec 71
Mildura Red Cliffs	E. Lyndon	24 Nov 65
Mirboo Rd lway Line	"	55 Jul 68
Mitchell River Gorge 9/7/72	B. Thompson	104 Aug 72
Moonlight Creek	"	93 Sep 71
" "	J. Brooks	91 Jul 71
Morwell	J. Peterson	2 Nov 63
" National Park 'Fosters Gully' led E. Lyndon	E. Homan	21 Aug 65
" " "	B. Thompson	46 Oct 67
" Open Cut led DR. Barton	"	95 Nov 71
" River Prison Farm	"	93 Sep 71
MT. Elizabeth (Bairnsdale F.N.C.)	J. Galbraith	60 Dec 68
Mt. Erica	G. Marshall	17 Apr 65
Mt. Howitt Adventure	E. Lyndon	87 Mar 71

EXCURSIONS PAGE 3

Mt. Howitt	Campout	30/1 -2/2/71	L. Padfield	86 Feb 71
"	"	29-31/1/72	B. Thompson	98 Feb 72
"	"	"	D. Quinton	98 Feb 72
"	McAlister Springs Trip	31/1/71	E. Brewster	87 Mar 71
"	Revisited		E. Brewster	92 Aug 71
"	Snippets		B. Thompson	86 Feb 71
Mt. St. Gwinear		26/2/72	"	99 Mar 72
Mt. Useful			"	89 May 71
Mt. Worth (Warragul F.N.C.)			J. Brooks	105 Sep 72
Narguns Cave			M. Hague	30 May 66
Nelson Bay (H.S.W.)			E. Homann	81 Sep 70
"	"	Revisited	"	92 Aug 71
North Queensland			"	46 Oct 67
Philip IS. Preview			G. Scanlan	27 Feb 66
Powelltown (Warragul F.N.C.)		23/7/72	J. Brooks	104 Aug 72
Rintouls Creek	led J. Johnstone	26/11/71	A. Moretti	91 Jul 71
"	"	P. Harris 25/7/70	B. Thompson	80 Aug 70
Rosedale South	led O. Thompson	16/9/72	J. Galbraith	107 Nov 72
"	"	P. Turner 29/4/72	B. Thompson	101 May 72
"	"	Linepit Rd. led Sale F.N.C.	E. Lyndon	69 Sep 69
"	"	" 28/9/63	J. Galbraith	1 Oct 63
"	"	" 15/9/68	N. Rossiter	58 Oct 68
Sagassers Road	led R. Auchterlonie	29/3/69	B. Sterkenburg	65 May 69
"	"	"	E. Homann	65 May 69
Salc			E. Lyndon	20 Jul 65
"	Led F. Jones	31/3/68	T. Moretti	53 May 68
"	"	E. Lyndon	"	87 Mar 71
"	"	Salc F.N.C. 1/8/69	E. Lyndon	69 Sep 69
"	Common led F. Jones	29/8/64	W. Cane	11 " 64
Sandy Point			E. Lyndon	17 Apr 65
Snowy Mountains /Mt. Kosciusko			E. Homann	27 Feb 66
South Cascade	25/4/64 (Ferns)		J. Galbraith	7 May 64
"	"	29/4/67 led E. Lyndon	B. Thompson	41 May 67
"	"	3/5/69 'Lichens' led R. Filson	E. Lyndon	66 Jun 69
"	"	28/7/65 Working Bee	J. Peterson	18 May 65
South-West New South Wales			T. Moretti	47 Nov 67
S.E.C. Reserves	led I. McDonald		B. Thompson	55 Jul 68
Stoney Creek	Cowwarr led F. Jones	26/8/67	B. Kemp	45 Sep 67
"	"	" 29/11/69	M. Galbraith	73 Jan 70
"	"	J. Johnstone 28/10/72	J. Lubcke	108 Dec 72
"	"	"	M. Hague	30 May 66
"	"	"	B. Kemp	46 Oct 67
"	"	25/10/70	A. Moretti	83 Nov 70
"	"	led F. Jones 28/8/67	B. Kemp	45 Sep 67

EXCURSIONS PAGE 4

Tarra Valley Bulga Park 23/11/68	T. Moretti	60 Dec 68
Toongabbie Marble Quarry	A. Moretti	41 May 67
Toorong Falls Glen Nayook	B. Thompson	96 Dec 71
Traralgon South Reserve	J. Galbraith	37 Dec 66
Turtons Creek led E. Lyndon 4/4/70	E. Lyndon	77 May 70
Tyers 'Geology' led D. Chalmers 27/7/68	L. Padfield	56 Aug 68
Venus Bay 'Marine Biology' led R. Blackwood 20/5/67	L. Padfield	43 Jul 67
" " 'Aboriginal Relics' led E. Brewster 25/4/70	J. Peterson	78 Jun 70
Walkerville led E. Brewster 1/3/69	E. Brewster	66 Jun 69
" " 25/3/72	E. Lyndon	97 Jan 72
" " 25/3/72	E. Brewster	101 May 72
Waratah Bay led E. Lyndon & E. Brewster 26/3/66	B. Kemp	30 May 66
Wilson's Promontary	F. Jones	6 Apr 64
" " Campout 8-9/11/69	B. Thompson	72 Dec 69
" " led R. Garnet 23/10/65	E. Honann	24 Nov 65
Wirilda 19/8/72	N. Puckey	105 Sep 72
Witts Track Haunted Hills	R. Stephens	25 Dec 65
Wulgulmerang led J. Galbraith Jan 68	N. Rossiter	50 Feb 68
" Campout 24-26/1/70	"	74 Feb 70
" Forlorn Hope Plain	E. Honann	74 Feb 70
" 27/1/70	J. Peterson	74 Feb 70
Yallourn North "Water Plants" led H. Aston	E. Lyndon	48 Dec 67
" " Open Cut led A. Adams 30/11/63	G. Scanlan	3 Dec 63

FAUNA

Antarctica; Animal Life Talk J. Borchervaise 24/6/64	S. Belgraver	9 Jul 64
Bandicoot: Tasmanian Barred	M. Swanink	66 Jun 69
Bats	B. Kemp	42 " 67
" Little Reddish Fruit	E. Lyndon	71 Nov 69
Book Review ;		
'Guide to Native Mammals of Aust' E. Fry	E. Lyndon	85 Jan 71
'In the Shadow of Man' J. Van Lawick-Goodall	J. Galbraith	101 May 72
'Treasury of Australian Wildlife'	G. Scanlan	48 Dec 67
'Venomous Aust. Animals, Dangerous to Man'	J. Peterson	65 May 69
R. Garnet.		
Conservation of Wildlife ; talk A. Roberts 26/2/71	B. Thompson	88 Apr 71
Crocodiles; Where have they gone?	I. Peterson	102 Jun 72
Darlinurla Fauna Survey	E. Lyndon	44 Aug 67
Drinking Hole in Treefern	B. Thompson	53 May 68

FAUNA

Echidna	E. Lyndon	10 Aug 64
"	M. Hague	24 Nov 65
"	J. Peterson	30 May 66
" with a thirst	J. Brewster	19 Jun 65
Fox Marauder	M. Hague	24 Nov 65
* " That Came to Dinner!	E. Lyndon	106 Oct 72
Frogs: Baw Baw	G. Scanlan	61 Jan 69
Jerboas & Banksias Ext. 'Geraldton Guardian'	J. Galbraith	33 Aug 66
Koalas	E. Lyndon	96 Dec 71
" mistake	R. Auchterlonie	100 Apr 72
Lace Monitor (Goanna)	M. Wildes	78 Jun 70
Lampreys in the Tarwin	H. Brewster	72 Dec 69
Lizards at Boronia	R. Stephens	39 Mar 67
Marsupial House: Little Tasmanian	E. Lyndon	78 Jun 70
" "	"	83 Nov 70
Phascogale: Brown	B. Thompson	30 May 66
Platypus in Berry Creek	E. Lyndon	47 Nov 67
" in the Tarwin	"	11 Sep 64
Rats:		
Allied Rats	J. Peterson	4 Feb 64
Bush Rats	B. Thompson	102 Jun 72
Eastern Water Rat	J. Peterson	24 Nov 65
Salamanders	M. Hague	17 Apr 65
Seal in the Tarwin	E. Brewster	17 Apr 65
Snakes:		
Black Snakes at Dutson	E. Lyndon	59 Nov 68
A Yam	"	90 Jun 71
Wombats	G. Scanlan	24 Nov 65

MARINE BIOLOGY

Book Review 'Life on Australian Seashores'	J. Galbraith	41 May 67
Commercial Fishing: talk A. Roberts	B. Thompson	103 Jul 72
Eagles Nest Excursion 11/2/68 (Traralgon F.N.C.)	G. Marshall	54 Jun 66
" " " " " "	E. Lyndon	55 Jul 66
Lake Tyers Fish	V. Jermalov	84 Dec 70
Marine Biology: talk R. Blackwood 19/5/67	B. Kemp	43 Jul 67
" " " " 26/11/71	B. Thompson	97 Jun 72
Minute Animals Microprojection; talk J. Nichols 28/3/64	J. Peterson	
Venus Bay Excursion 20/5/67	L. Padfield	43 Jul 67

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Aboriginal Findings at Keilor	G.Scanlan	43 Jul 67
" & Natural History	D.Frost	49 Jan 68
" Relics at Venus Bay Exc. led Mrs Brewster	J.Peterson	78 Jun 70
" " in Victoria: talk A. West	B.Kemp	78 Jun 70
Aerial Seeding of Forests Radio Talk, Mr. Gidley, B. Thompson		89 May 71
Annual Report : L.V.F.N.C. 1971		100 Apr 72
" " Sale 67/68	E.Newman	58 Sep 68
" " " 1971		94 Oct 71
Bairnsdale Convention	J.Brooks	107 Nov 72
Baw Bay Background	E.Lyndon	100 Apr 72
" " Principal Mounts	J.Brooks	89 May 71
Beginnings of a North-east Victorian F.N.C.	J.Galbraith	53 May 68
Book Review; 'Between Wodjil & Tor' B.Main	B.Kemp	86 Feb 71
" 'Great Extermination' A.Marshall	K.Eldridge	34 Sep 66
" 'Naturalists Diary'	G.Scanlan	45 Sep 67
" 'Nature Walkabout'	"	46 Oct 67
B.s Tour Proposal		100 Apr 72
Canoe Tree, Rosedale "	E.Lyndon	68 Aug 69
'Christmas Wish' (verse)	J.Galbraith	37 Dec 66
Conservation	J.Peterson	35 Oct 66
" (verse)	Anon.	104 Aug 72
" Council of Victoria	J.Brooks	80 Aug 70
" Australian Foundation	G.Scanlan	45 Sep 67
" Creed Ext. Victorian Resources	P.Scott	54 Jun 68
" Day	B.Thompson	96 Dec 71
" Ext. Victorian Resources	D.Butcher	31 Jun 66
" " " "	S.Elliott	38 Feb 67
" Marion Wanliss Camp	B.Kemp	102 Jun 72
" Select Committee of Wildlife Cons.		79 Jul 70
Contrasts Between English & Australian Winters	M.Hague	21 Aug 65
Copyright	G.Scanlan	57 Sep 68
Ecology Ext. 'Where There's Life' P.Scars	G.Scanlan	33 Aug 66
Eldridge K.: Activities From a Letter		33 Aug 66
Environmental Protection Authority	B.Thompson	105 Sep 72
Excursion Suggestions	M.Hague	44 Aug 67
Extract: History of Australiana	J.Peterson	85 Jan 71
Film Night Meeting 22/1/71	B.Kemp	86 Feb 71
" " " 21/1/72	"	98 Feb 72
" " " 25/9/63	K.Eldridge	1 Oct 63
" " " 18/8/72	L.Padfield	105 Sep 72
" " " 27/10/72 with Mr. Dowling	B.Thompson	107 Nov 72
Fire in Forest Areas : talk A.Hodgson	"	94 Oct 71
High Plains Country	G.Scanlan	26 Jan 66
History of the Naturalist		100 Apr 72
Hyatt J. address 27/6/69	B.Thompson	69 Sep 69

GENERAL PAGE 2

Jacksons Paddock (verse)	L.Galbraith	29 Apr 66
Jones F. - Bird Lover		81 Sep 70
" Memorial	J.Galbraith	90 Jun 70
" " at Yellingbo	B.Kemp	104 Aug 72
Manchurian Museum : talk V.Jernakov	V.Jernakov	14 Dec 64
Merrimu Cottage Ext.N.Wakofield Letter		82 Aug 71
" " Weekend	K.Lambert	96 Dec 71
Microscope : talk Mr.&Mrs. Williams 22/10/71	B.Thompson	95 Nov 71
" Diagram		93 Sep 71
Mt. Beauty Spring School	J.Galbraith	2 Nov 63
" " "	"	60 Dec 68
National Parks Authority - Press Releases		84 Dec 70
" " " " "		88 Apr 71
" " Burleigh Heads	E.Honann	35 Oct 66
" " Captain Cook National Park	J.Peterson	76 Apr 70
" " :Eastern Vic. Ext. Nat. Parks Leaflet		103 Jul 72
" " " " " " "	"	104 Aug 72
" " Ecology	Prof. J.Turner	59 Nov 68
" " :Morwell	J.Peterson	32 Jul 66
" " " Ext. Vict. Resources	L.Smith	42 Jun 67
Natural History Books	J.Galbraith	98 Feb 72
" " Medallion Award		81 Sep 70
Nature Notes	Various	74 Feb 70
Periodicals Reviewed Aust.Natural Hist. Mag.Sep 68	G.Scanlan	58 Oct 68
" " :Aust.Plants Sep 68	G.Scanlan	58 Oct 68
" " :Victorian Resources Sep/Nov 68	"	58 " 68
" " :Wildlife in Aust. Sep 68	"	58 " 68
Petersons Lookout	I.Peterson	102 Jun 72
Pea for Survival	B.Kemp	86 Feb 71
Pollution : talk D.Goode 25/6/71	J.Galbraith	91 Jul 71
Price of Progress	J.Peterson	75 Mar 70
Quotations from A.B.C.Guest of Honour.Prof. Swanson		91 Jul 71
Red Bluff at Sunrise	G.Scanlan	29 Apr 66
Salt-water Aquarium	R.Blackwood	42 Jun 67
Scanlan.G.	J.Peterson	82 Oct 70
Tali Karng 'Hidden Lake' (verse)	M.Hague	24 Nov 65
'The Time Has Come' (verse)	D.Nason	60 Dec 68
Thompson River Valley Case	J.Peterson	33 Aug 66
Yanakie Run: Ext. Nat. Park Authority Release	J.Peterson	67 Jul 69

GEOLOGY

Anticlinal Fold :Castlemaine	G.Scanlan	41 May 67
" " :Woori-yallock	"	41 May 67
BookReviews; 'Geology of Melbourne District' D.Thompson, G.Scanlan		48 Sep 67
'Landform Studies of Aust&New Guinea' J.Jennings "		48 Sep 67
Caves : Underground in Japan	F.Kinneburgh	21 Aug 67
Fossils: talk T.Darragh Jun 67	E.Newnham	43 Jul 67
Bird Tracks	E.Brewster	73 Jan 70
Japanese Ammonites	F.Kinnegurgh	22 Sep 65
Pygmy Possum & Others	G.Scanlan	34 Sep 66
Jasper Farm (Queensland)	E.Homann	35 Oct 66
Latrobe Valley Coal Seams :Talk DR.Barton 25/7/69	B.Thompson	69 Sep 69
" " Geology :talk A.Coulson	S.Scott	10 Aug 64
" " "	J.Nicholas	11 Sep 64
Mushroom Rocks Mt. Erica	G.Scanlan	16 Mar 65
New Zealand :Glaciers & Lakes	E.Homann	79 Jul 70
" " :Thermal Region	"	78 Jun 70
Oil Fields of Mesopotamia :talk.Dr.Barton 27/8/71	B.Thompson	94 Oct 71
Petrology :talk J.Nicholas 23/6/65	G.Scanlan	21 Aug 65
" of Coopers Creek Excursion led J.Nicholas "	"	21 " 65
Plant Remains in Mesozoic Beds Boola Boola Forest		
talk Dr. Douglas 24/7/70	B.Thompson	80 Aug 70
Rosedale South Geology :talk P.Turner	B.Thompson	101 May 72
Sand Mining	E.Homann	85 Jan 71
" " Notes	E.Lyndon	91 Jul 71
" " Results	J.Galbraith	91 Jul 71
Tasmanian Geology :talk G.Rowe (Warragul)		101 May 72
Volcano; New Guinea Active	E.Homann	31 Jun 66
Walkerville Geology Excursion led E.Brewster 1/3/69	E.Brewster	66 Jun 69
Yallourn Open Cut Excursion led A.Adams 30/11/63	G.Scanlan	3 Dec 63

INSECTS ETC..

Ant Trail	J. Brewster	93 Sep 71
Bee-keeping :talk T.&A. Moretti 24/9/71	B. Thompson	95 Nov 71
Book Review 'Insects & their Habits' J. Child	J. Galbraith	40 Apr 67
Bush Flies	I. Peterson	108 Dec 72
" " in Winter	J. Peterson	84 Dec 70
Butterflies:		
Australian Skippers (part1)	L. Gooding	108 Dec 72
Cabbage White	"	49 Jan 68
Golden Browns of S.E. Australia	"	54 Jun 68
Migration :talk C. Smithers 12/5/71	H. Crane	95 Nov 71
Moonlight Blue	L. Gooding	97 Jan 72
Pseudodipsos cuprea	"	95 Nov 71
Satyrid Butterfly	"	86 Feb 71
'Victorian Butterflies' talk J. Landy 23/10/70	B. Thompson	84 Dec 70
Wanderers	E. Lyndon	76 Apr 70
"	L. Gooding	82 Oct 70
"	L. Galbraith	29 Apr 66
Wandering	J. Peterson	88 Apr 72
Harvestmen.	E. Lyndon	39 Mar 67
"		
Insects :talk J. Landy	G. Scanlan	39 Mar 67
" " : a Display of ..J. Courtenay 28/7/72	B. Thompson	104 Aug 72
" : Collecting	J. Courtenay	96 Dec 71
Kelp Flies	E. Lyndon	50 Feb 68
Moths: Acacia Moth	J. Galbraith	30 May 66
Swift Moth of Rocky Knob	E. Lyndon	99 Mar 72
Slaters of Neds Corner: Mildura	N. Simpson	61 Jan 69
Snails:	B. Thompson	96 Dec 71
" Chaser	"	79 Jul 70
" Preservation	H. Christensen	89 May 71
Spiders: Orb Weaving	G. Stevenson	87 Mar 71
Tapping	J. Brewster	99 Mar 72
Webs	B. Thompson	33 Aug 66
"	J. Brooks	70 Oct 69
"	E. Lyndon	100 Apr 72
Termites	G. Scanlan	48 Dec 67
Wasps: Sand-digger	E. Lyndon	92 Aug 71

